

THE CONTRACT JOURNAL

INCORPORATING

THE BRITISH CONSTRUCTIONAL ENGINEER AND THE CONTRACTOR

No. 4,301 83rd YEAR

THURSDAY, NOVEMBER 30, 1961

PRICE 2/-



MOST WORK-



LEAST COST!



A choice of bodies,
with hydraulic
or gravity tip,
is available—
with or without
driver's cab.



The latest Muir-Hill 3 cu. yd. machine results from nearly thirty years continuous production of dumpers. In consequence, the Muir-Hill 10B dumper is ahead in design, with lower operating costs, easier maintenance and easier control. Write now for latest leaflet.

Muir-Hill
Regd.

BUILT BY BOYDELL

3 CU. YD. 10B DUMPER

BOYDELL & CO. LTD. EAGLE WORKS 3, OLD TRAFFORD MANCHESTER 16



Standardised hydraulics.
Super comfort "Spaceview" cab.
More power.
Faster work cycle.
Full deluxe lighting, trafficators,
Interior light and external mirrors.
Bulldozer blade.
Scarifier.
Quick-fit 1ton crane.
70 ton tested front axle.



ROCESTER STAFFS. C/UTTOXETER 3122. TELEX 3654.

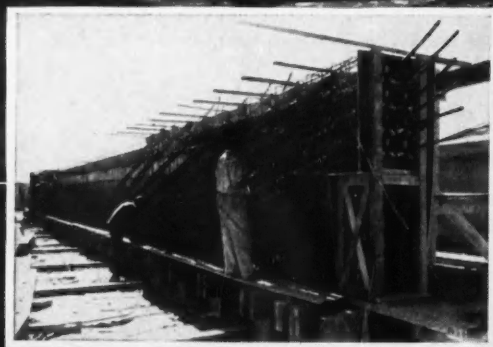
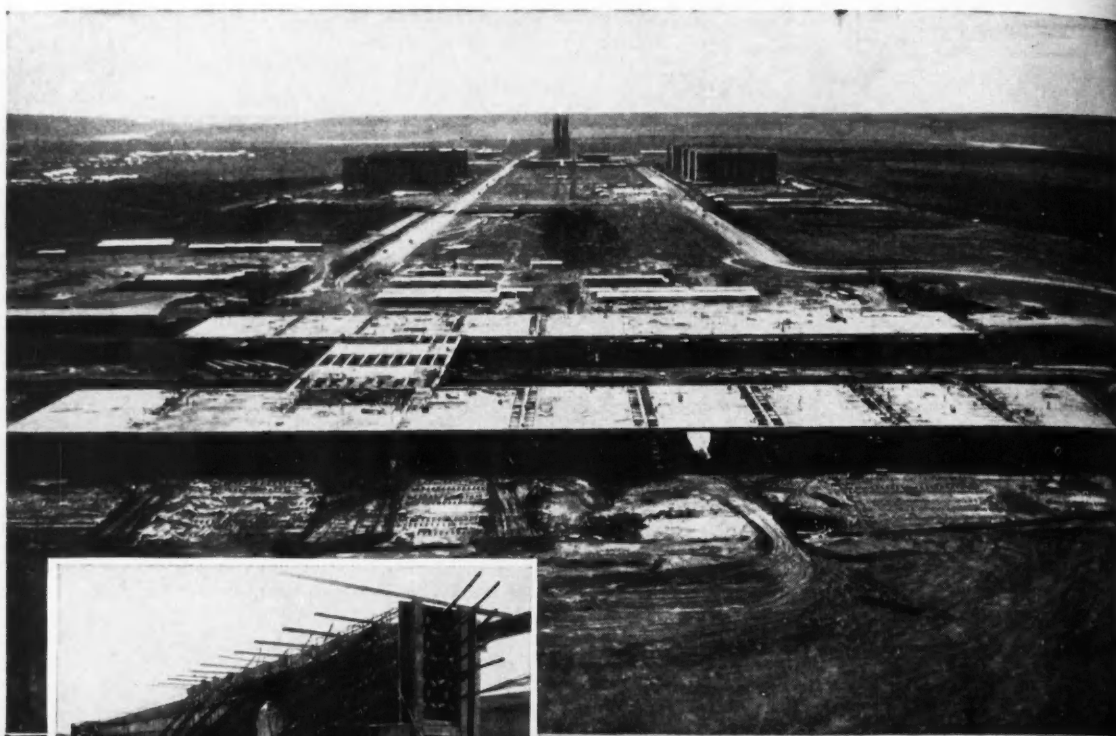
MORE MACHINE FOR YOU WITH THE

* Note the advantages of the  4L

THE **JCB** 4L IN ACTION



MONEY
JCB 4L

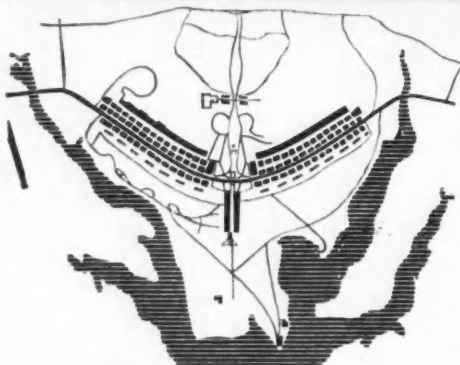


Opening up new horizons

RYLANDS

HIGH TENSILE PRESTRESSING WIRES

chosen for the wonder city of **BRASILIA**



PLAN OF BRASILIA

This city in the interior, built to stimulate Brazil's prosperity, has cost an estimated 345 million dollars. From a central intersection the ultramodern planning extends to the president's palace built on the shores of one of the largest man-made lakes in the world.

Acknowledgements: Structural Engineer:
Sergio Marques de Souza, Rio de Janeiro.
Contractors:
Construtora Rabello S.A., Rio de Janeiro
Wire supplied through:
Adams & Harvey Ltd., London and Associates in Brazil.

The words wire and Rylands have been synonymous in the building of countless new constructions all over the world. Its use in the erection of Brazil's new capital proved again that Rylands can meet any demand for standard and specialized high tensile wire needed in prestressed concrete projects everywhere. In one of the most daring concepts of architecture in this century, Rylands again upheld their reputation by supplying tons of high tensile steel wire for prestressing concrete beams in the city centre intersection flyover: and for the Tocantins Bridge, one of the largest single span prestressed concrete bridges in the world.

Whether your order for prestressing wire is large or small, consult Rylands.

RYLANDS

BROTHERS LIMITED
WARRINGTON · LANCs

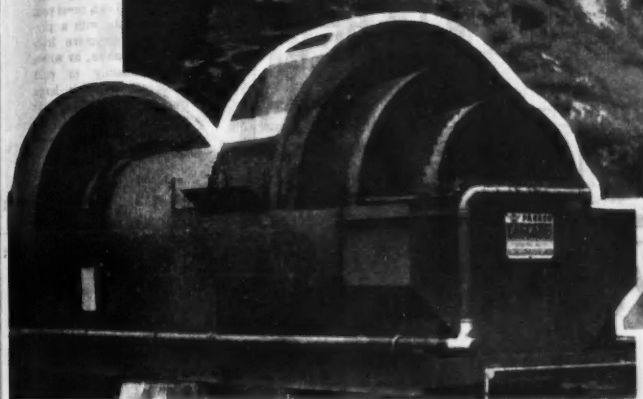


PARKER

Deep - Wash

Scrubbers

FIXED or MOBILE



Deep-Wash Scrubbing — the most intensive washing action of all . . . in DEEP WATER! All Parker Scrubber Washers include features to give the highest washing efficiency with the most economical water consumption. Used in conjunction with Parker Sand-Dewatering Equipment, they provide the means of obtaining big outputs of high-grade aggregate at low cost.

'Cascade'

For low-cost production of high-grade aggregate the Parker patent 'Cascade' is unique. It provides high efficiency feeding, deep-wash scrubbing, and screening. Teamed with a range of auxiliary units such as sand dewaterers and granulators for pre-crushing, it can become a complete sand and gravel plant, either fixed on ground foundations, mounted over bins, or completely mobile. Available in three sizes with outputs from 10 to 120 tons an hour.

Write for Publication No. 430.

'Cascade'

SCRUBBER MILL

This latest addition to the famous Parker 'Cascade' range of scrubbers has an even deeper 'deep-wash' scrubbing gained by the intense milling action of the material in the deeper washing barrel. With variable barrel speeds of 10 to 20 r.p.m. extra wide feed ring; roller tracks accurately machined together; optional clay-beater equipment; and rotary or vibrating screen. In two sizes, outputs from 60 to 150 tons an hour. Write for full details; ask for Publication 612.

Proved Performance Pays!

FREDERICK PARKER LIMITED

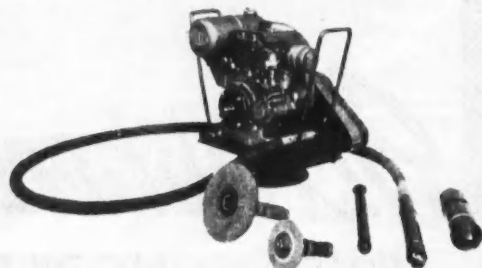
Viaduct Works, Leicester

Phones: Leicester 62531 (10 lines)

London: Stafford House, Norfolk Street, W.C.2.

ALLAMCONTRACTORS
PLANT

**SALE OR HIRE OR
HIRE WITH OPTION TO PURCHASE**
INTERNAL & EXTERNAL VIBRATORS



BAR CROPPERS & BENDERS
VIBRATING TAMPERS
COMPACTING MACHINES
GENERATING SETS
PUMPS

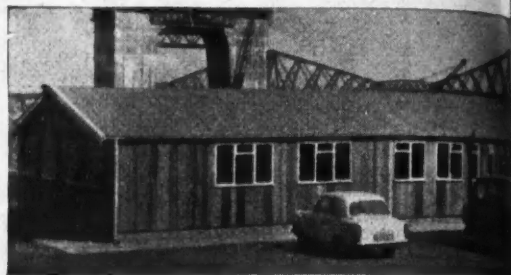
E. P. ALLAM & CO. LTD.

132/135 SLOANE STREET • LONDON, S.W.1

Tel: SLOane 9976

AGENTS THROUGHOUT U.K. AND EIRE

space
to your
specification



PEEL'S
Prefabricated
Buildings

Whether you require a large site building, a small office, or a building extension, PEEL'S can meet your requirements with a prefabricated structure from their vast range, or with a design exactly to your specification. This large Contractor's Office was supplied by PEEL'S for use on the Forth Road Bridge Site.

H. PEEL LIMITED, DEPT. C.J., SOWERBY BRIDGE, HALIFAX. • Phone: Halifax 11



**YOU GET SO MUCH MORE
FOR YOUR MONEY ...**

* NO 'MIXTURE' PETROL AND OIL
IN SEPARATE TANKS

* NO AIR CONTROL OR 'STRANGLER'

* AUTOMATIC LUBRICATION

* POSITIVE CARBURATION ENSURES INSTANT STARTING
- CONSTANT RUNNING

* FIRST RATE AFTER SALES SERVICE

Ask for demonstration

JOHNSON QUALITY PAYS

... with a
**JOHNSON
MAXTAMP
POWER
RAMMER**

REGD.

C. H. JOHNSON (MACHINERY) LIMITED
STOCKPORT, CHESHIRE
Telephone: Stockport 2642/5. Telex 66-297.
Telegrams: "Machinery" Stockport.

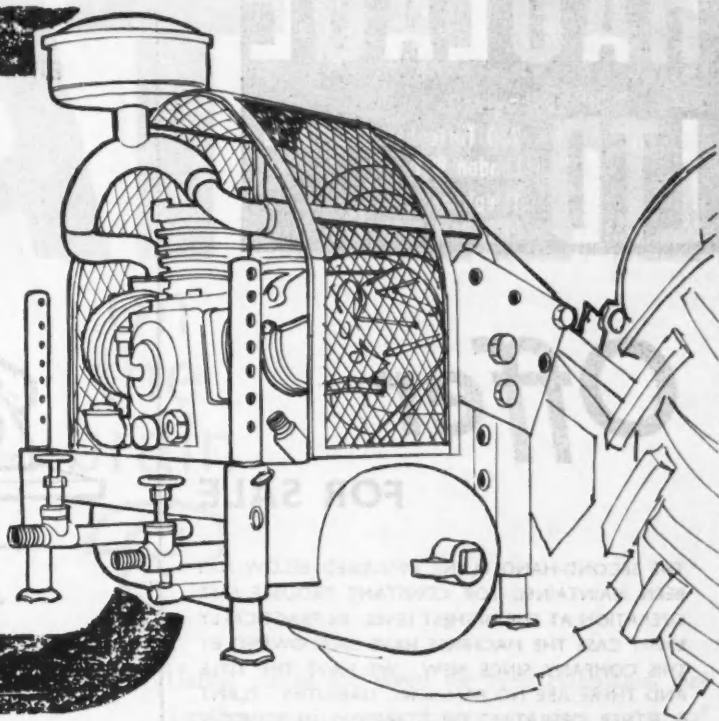
FOR DUMPERS • MUD PUMPS • CENTRIFUGAL PUMPS • POWER RAMMERS
POKER VIBRATORS • SCREED VIBRATORS • FIXED AND MOBILE CONVEYORS

London Sales & Service Depot: 38-44, Lower Richmond Rd., S.W.14. Tel: PROspect 7671.

Scottish Spares & Service Depot: 119, Whitefield Rd., Govan, Glasgow, S.W.1. Tel: Govan 2701

MORE AIR AT LESS COST

HYDOR TRACTOR MOUNTED AIR COMPRESSOR



... CAN BE MOUNTED ON TO ANY PRODUCTION WHEELED TRACTOR

*

145 cu. ft. FREE AIR @ 100 p.s.i.

£450 ex works

132 cu. ft. FREE AIR @ 100 p.s.i.

£395 ex works

SOLE U.K. DISTRIBUTOR

Contact

Abelson & Co. (Engineers) Ltd.

for further details and name
of your local dealer

ABELSON

& CO. (ENGINEERS) LTD

SHELDON · BIRMINGHAM 26

TELEPHONE: SHELDON 2424 (10 LINES)

LONDON: 7 SOUTH SIDE · CLAPHAM COMMON · LONDON SW4

TELEPHONE: MACAULAY 3407 (3 LINES)

MANCHESTER: TRAFFORD BAR · MANCHESTER 16

TELEPHONE: TRAFFORD BAR 2536

MOBILE HAULAGE LTD

230 Tottenham Court Road
London W.1.
Telephone
LANGHAM 7833/4/5

Offer

FOR SALE

THE SECOND-HAND PLANT DESCRIBED BELOW HAS BEEN MAINTAINED FOR CONSTANT TROUBLE FREE OPERATION AT THE HIGHEST LEVEL. IN PRACTICALLY EVERY CASE THE MACHINES HAVE BEEN OWNED BY THIS COMPANY SINCE NEW. WE HAVE THE TITLE AND THERE ARE NO FINANCIAL LIABILITIES. PLANT IS EITHER OPERATING OR STANDING IN LONDON OR ESSEX.

J. DEERE 831 LOADER AND 51 BACKHOE

£2,500

This combination of Tracked Tractor Shovel (1 cu. yd.) and Excavator (up to 36" bucket) is the *one* machine required for building jobs. Replaces two others. A 'must' for wet weather. Will cut out roads, spread topsoil, trench, load surplus materials off Site. We have two available approximately 12 months old maintained by Agents and in first class order. Equipment includes buckets etc. from:

J. DEERE 831

Loader only 1 cu. yd. Tractor Shovel in first class condition: £1,500

CATERPILLAR HT4

£1,750

Specially prepared as a Site clearance Tractor. Heavy duty cab for driver protection. Hyster logging winch. Track parts 25% worn ready for a season's work:

CATERPILLAR 955—1½ cu. yd.

This well known and tried machine maintained in first class condition by this Company. Track parts 30% worn: £3,250

THE PROBLEM HOW?

THE ANSWER.....

RING HOWARD 4994



REMEMBER CHAMBERLAIN INITIALLY

CP

for all

PLANT HIRE

CHAMBERLAIN PLANT LTD.

(One of the Chamberlain Group of Companies)

CROWN WORKS, SOUTHBURY ROAD, ENFIELD, MIDDX. Tel: HOWARD 4994

WATER

on
the
brain



If you've got water in the wrong place—call in Sykes.

Wellpoint pumping is the answer to the problems of waterlogged sites and running sand, and Sykes experience of dewatering covers more than a century.

A Sykes wellpoint installation comprises a number of Jetwells operated by a Sykes Univac pump. The Jetwell is a great advance in wellpoint design, and

Univac pumps are noted for their exceptional air-handling capacity, while the range of sizes — 2" to 12" — covers every wellpoint application.

Such an installation is unbeatable for efficiency and for operating without attention for long periods.

Can we help you with your particular dewatering problem? Sykes Jetwells and pumps may be purchased outright or hired for any period.

SYKES

DEWATERING EQUIPMENT

FOR SALE OR HIRE

HENRY SYKES LIMITED

Southwark Street, London, S.E.1. Telephone: HOP 5231 (8 lines) Telegrams: Tripulse, Sedist, London
Branches and Distributors at Sandbach, Cheshire • Glasgow • Newcastle and Cardenden, Fife

SERVICE FOR CERTAIN PLANT HIRE

Model S7 Breaker

Warsop Power Tools
Ltd.

Do you know that we regularly hire out the following

DOTT SHOVELS—JCB EXCAVATORS

VIBRATORY ROLLERS—6½ cwt. & 8 cwt. Hand Propelled
22 cwt. Tandem 10 cwt. Tractor Driven.

SCAFFOLDING—Erected in any conceivable type of contract.

VIBRATORY CONCRETE POKERS—Dia. of Heads 1½" upwards.

HOISTS—'Saga Junior' Scaffold 'Ace Comet' or
BHC 'Ant Queen' Platform.

RAILWAY SLEEPERS—For Site Roads.

ROLLED STEEL JOISTS—For temporary constructional
assistance.

POWER SAWS—Electric & Petrol.

There is in fact almost no limit to the plant provided by
our **CERTAIN SERVICE.**

CAMPBELL-GRAY, LTD.

Office: 68/70, PENCE ROAD, SOUTH NORWOOD, LONDON, S.E.25
Tel. SYD. 3131/5.

Yard: 517, Lordship Lane, Dulwich, London, S.E.22
Tel. FOR. 9795.

PILE HOLE BORING TOOLS

TRIPODS
CASINGS
CLAMPS
SHOES
JACKS

CONCRETE PLACERS
BORING DOLLIES
SLUDGE BAILERS
DRILL LINES
ROPE BLOCKS
DRIVE CAPS



FOR QUICK DELIVERY

DUKE & OCKENDEN LTD.

LITTLEHAMPTON • SUSSEX • Telephone: Littlehampton 1

London Office: 28 Victoria Street. Telephone: ABBey 610

The BUS BROWN TRENCHER SALE OR HIRE

Designed For Many Digging Jobs

- Water Lines
- Gas Lines
- Underground Electrical Wire
- Underground Telephone Cable
- Laying out Limits for Excavations
- Signal Cable
- Lawn Irrigation



Digging chains remain stationary while
machine is powered forward

AVAILABLE FROM STOCK
WITH 4" 8" & 12" CUTTER

SPECIAL WHEELS FOR WET AND MUDDY SITES ALSO AVAILABLE

Another of the
many unequalled
features of this machine
is the balancing of the
two front wheels for easy
steering while moving forward,
loading etc.

Adjustable Auger leaves clean
trench depositing dirt in neat
ridge on each side of trench for
easier backfill.

E. P. ALLAM & CO. LTD.

132-135 SLOANE STREET, S.W.1. TELEPHONE: SLOANE 9976 (5 lines)
SCOTLAND: 39 CAVENDISH STREET, GLASGOW, C.5. TELEPHONE: SOUTH 0186

ERNEST DOE & SONS, LTD., Malden, Essex.
CONTRACTORS' PLANT (NOTTS.), LTD.,
Stapleford, Notts.
STRANGFORD, LTD., Belfast and Dublin.
A. GUNN & CO., Altrincham, Cheshire.
O. L. DAVIES, Port Talbot, Glam.
J. LEWIS (MACHINERY), LTD., Burslem,
Stoke-on-Trent.
CONCRETE ENGINEERING SERVICES, York.
Road Industrial Estate, Wetherby, Yorks.
JOHN ROULSTONE, LTD., Newcastle upon
Tyne.
MODERN PLANT SALES, LTD., Oldbury,
Birmingham.
W. R. SELWOOD, Chandler's Ford, Hants.

97% availability

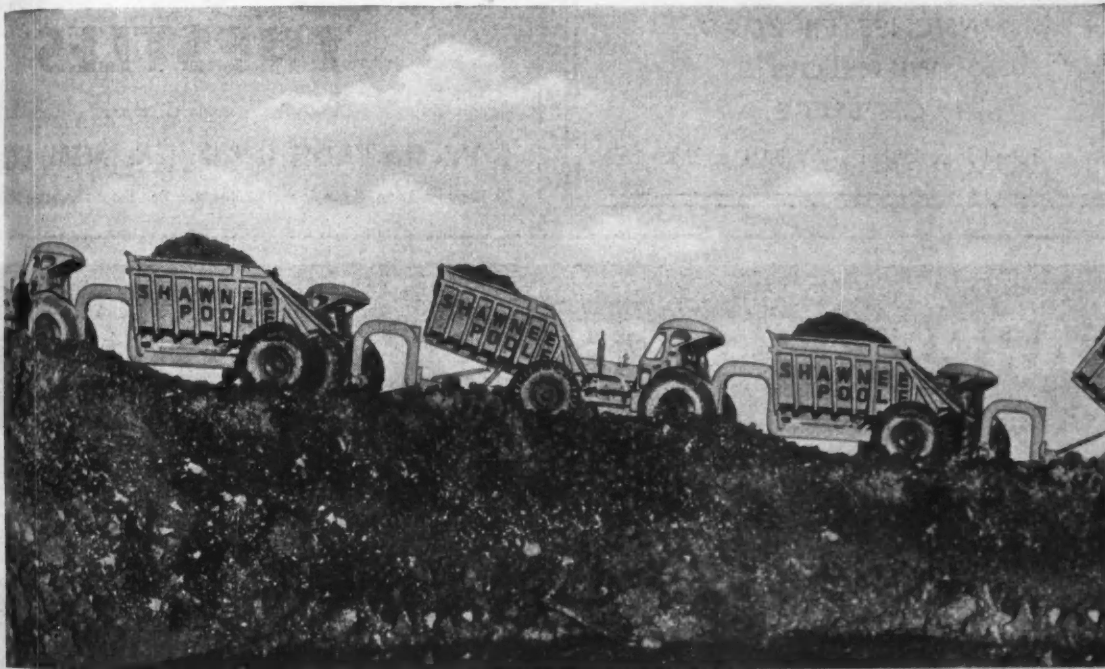
Shawnee Poole

**THE SHAWNEE POOLES
GO ON WORKING
WHEN EVERYTHING
IS BOGGED DOWN**

User experience has proved an overall availability of 97%. Shawnee Poole continues to operate during the worst conditions even when other forms of transport are completely bogged down. The Shawnee Poole System with the shortest turning circle of any equipment of its kind is the world's simplest and most economical method of industrial and earthmoving haulage.

Ask for a Job Survey on your site.

The Shawnee Poole System is manufactured under British and Foreign patents granted and pending.



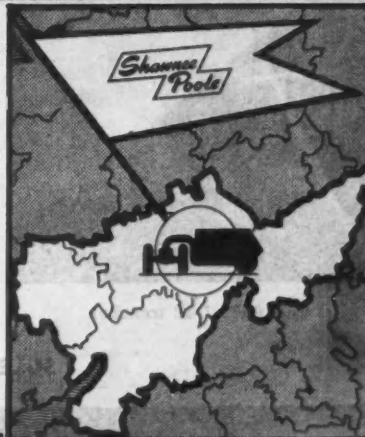
BRISTOL STREET MOTORS LTD.

ALCESTER ROAD, PORTWAY, Nr. BIRMINGHAM

Telephone: WYTHALL 2041

Your Dealer in:

Hereford, Warwick, Worcester, Northampton, Gloucester



FOR HIRE

- EXCAVATORS
- TRAXCAVATORS
- DROTT SHOVELS
- DOZERS & SCRAPERS
- COMPRESSORS
- DUMPERS
- CRANES

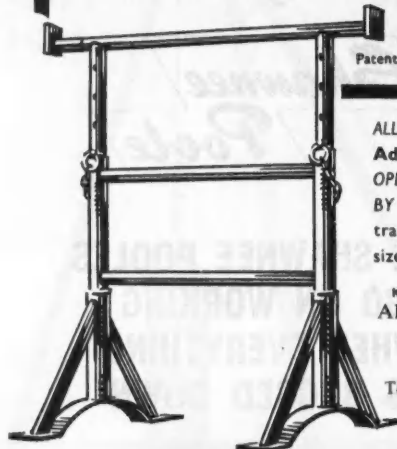
WILMSLOW PLANT HIRE COMPANY LTD.

MANCHESTER ROAD,
WILMSLOW,
CHESHIRE

Telephone: WILMSLOW 3421 & 3542

GRAVLOCK

Patent No. 740911



ALL STEEL TELESCOPIC
Adjustable TRESTLES
OPENED AND CLOSED
BY A FLICK. Fold flat for
transport. Four useful
sizes.

KENT & S.E. STOCKHOLM
ARTED & Co. LTD.
Woodland Avenue
HARTLEY
NR. DARTFORD, KENT
Tel. LONGFIELD 2001

TRESTLES

Details from the manufacturers

J. W. RAYLOR & CO. (ENGINEERS) LTD.

59 Beavers Lane, Hounslow, Middlesex. Telephone: Hounslow 08911

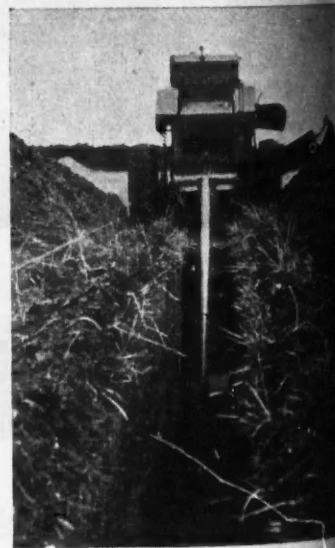
ARPS TRENCHING MACHINERY



The ARPS L-12 trencher

THE NEW ARPS TRENCH DEVIL MODEL L-12

- DEPTH OF DIG: maximum 5' 6"
- TRENCH WIDTHS: 2", 4", 6", 8", 10" and 12"
- BOOM CONTROL: Hydraulic giving down pressure as well as lift.
- DIRT DISPOSAL: conveyor type may be put on either side quickly.
- NUMBER OF DIGGING SPEEDS in both forward and rearward directions; infinite — no limit.



View showing trenching boom

SOLE CONCESSIONAIRES IN U.K. AND EIRE

A. J. SAUNDERS (TRACTORS) LTD. STILTON, Nr. PETERBOROUGH

Tel: YAXLEY 521-522

Cable: PLAYAX, ENGLAND

Remember

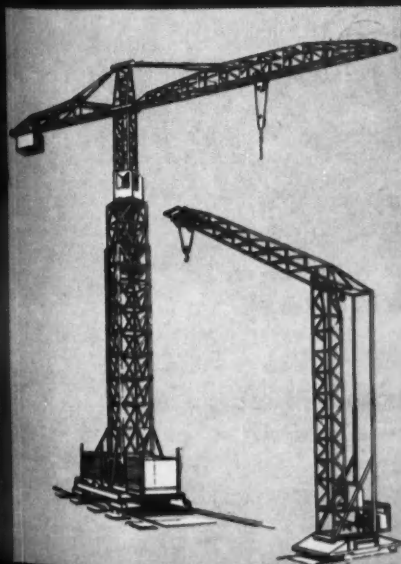
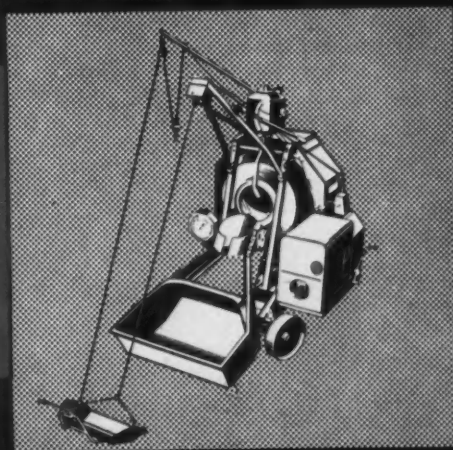
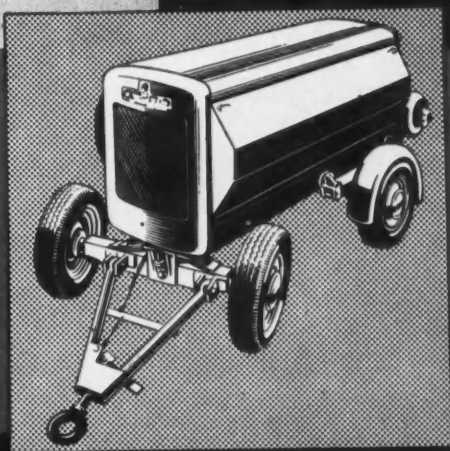
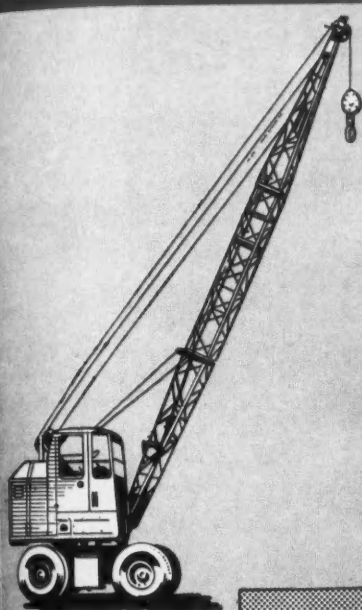
SUPPLEMENT

30.11.67 THE CONTRACT JOURNAL

VALES

first FOR

PLANT



VALES PLANT REGISTER LTD

14 LOWER GROSVENOR PLACE, LONDON, S.W.1.

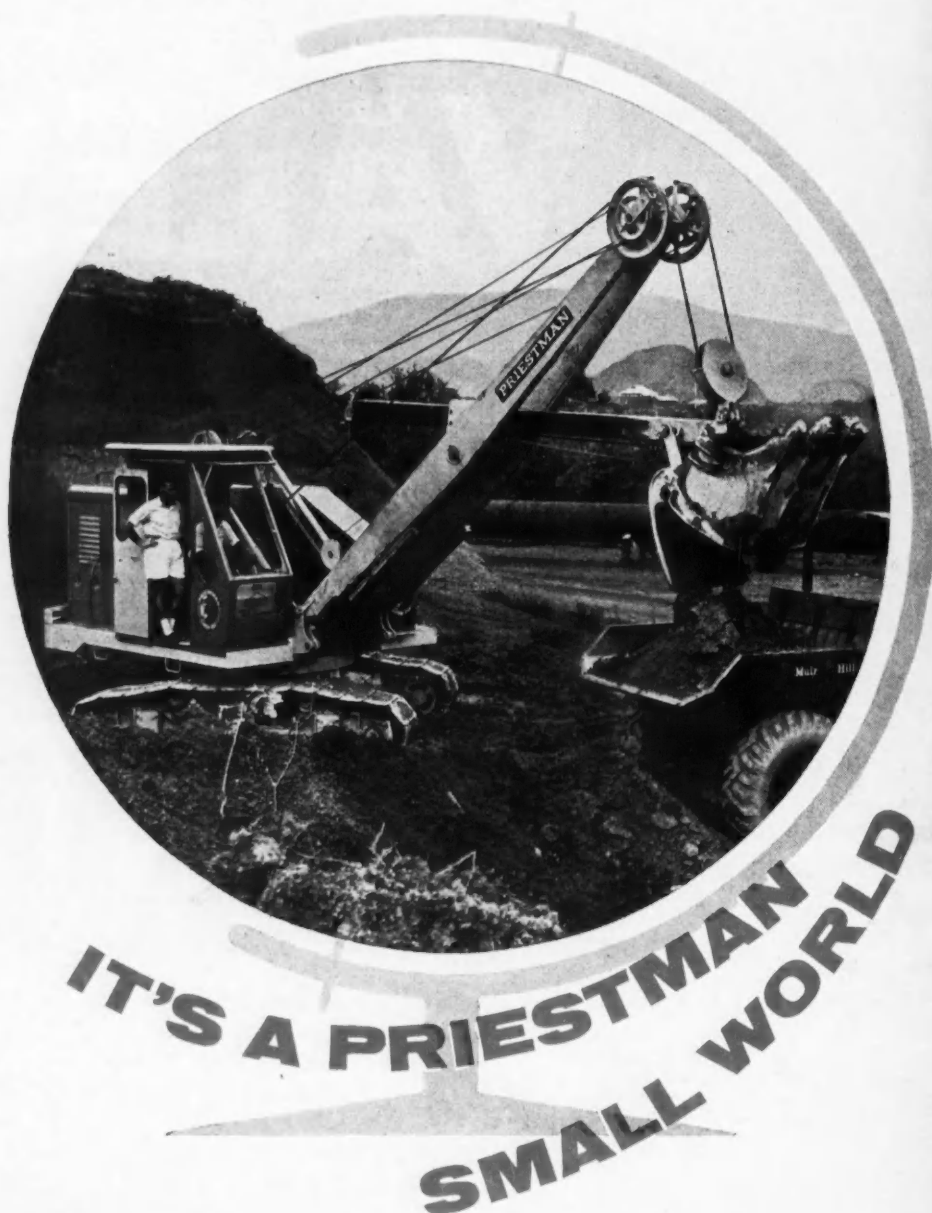
VICTORIA: 3501, 7531, 8080, 9886 (15 Lines)

Watford Works: Cow Lane, Garston, Watford.

Telephone: Garston 3266/7/8

VALES PLANT

ESTABLISHED OVER 40 YEARS



During the past 80 years, Priestman excavators have proved themselves in more than a 100 different countries, ranging from the Arctics to the Tropics. The sum total of this vast experience in making machines that will withstand every known climate; operate in every imaginable circumstance, is presented in the Lion III—world's most advanced excavator/crane of its size.

This Lion III is operated by Gopeng Consolidated Co. Ltd., Tin Mines in Malaya. Winning raw materials, the Lion's high output keeps 5 Muir-Hill Dumpers busy, running between digging and discharge point, a distance of only 150 yds.

You should have details of the Lion on file. Send NOW.

PRIESTMAN

PRIESTMAN BROTHERS LIMITED • HEDON ROAD • HULL • ENGLAND

Telephone: Hull 75111 • Telex: HULL 52120 • Telegrams: "Priestman, Hull."

Parts, Sales and Service Depots at HULL, LONDON, BIRMINGHAM and GLASGOW

ON TOP

of the job at
both ends!



B-275

INTERNATIONAL
Industrial Tractor
with B-40-I FRONT
LOADER & WAIN-ROY
back hoe.

A first class team
backed by
SAVILLE SERVICE



SAVILLE

A Company of the LUMLEY-SAVILLE Organisation.

(TRACTORS) LIMITED

STRATFORD-ON-AVON

Telephone: 4242 (15 lines)

Telex. Birmingham 31633

SALISBURY

Telephone: 6444 (5 lines)

LONDON

Tel: ASHFORD (Middx.) 4191 (10 lines)

Telex. London 24117

BELFAST

Tel: DUNMURRY 2511 (4 lines)

CARDIFF

Tel: CARDIFF 33572/3

Telex. Cardiff 49250

EXETER

Tel: STOKE-CANON 363



EIRE: Sole Distributors for INTERNATIONAL HARVESTER, J. H. SAVILLE & CO. LTD. Tel: DUBLIN 373606 (5 lines)

DINKUMS

RAC



DD60

WHITLOCK BROS. LTD.

TEL: ST KILMAY 10

TIME AND TIDE!



Time and tide waits for no man, that is why Dinkums were selected for their reliability, speed of operation and large output for the large scale excavations required in the reinforcing of the sea defences at Dymchurch.

GREAT YELDHAM ESSEX

(10 lines) Telex 1896

POWER PACKED!

EASIER OPERATION
MORE POWER PER BLOW
UP TO 21" JUMP
MORE YARDS PER MINUTE
SELF CONTAINED
LOWER OIL CONSUMPTION
COMPLETELY PROTECTED
MORE EFFICIENT FUEL SYSTEM



STREAMLINED **POWER RAMMER**

Built within the Bentley Group by

PEGSON LTD • COALVILLE • LEICESTERSHIRE

Tel.: 1234 (10 lines)

London Office: Iddesleigh House • Caxton Street • S.W.1

Tel.: Abbey 2373

Scottish Office: 7 Lister Road, Hillington Industrial Estate, Glasgow

Tel.: Halfway 1800



For full details
ask for leaflet
or write for
demonstration



NEW 2 TON 4 WHEEL DRIVE DUMPER

**built to beat
conditions that
defeat
normal dumpers:**

- **ALL-WHEEL DRIVE** keeps payload moving whatever the conditions. Rear wheels follow front exactly in track of leading pair for maximum utilization of power; gives more thrust, greater wheel adhesion.
- **HYDRAULIC STEERING** power steers two-ton load accurately and without effort. Positive placing of load, operated by built-in pump protected by filter in the system.
- **TWO-PART TANDEM CHASSIS** Quicker turnround, greater manoeuvrability, more accurate load placing! Totally new design of chassis gives tighter turns. 'Wishbone' link of extreme strength allows front and rear chassis to pivot to contours of site for increased wheel adhesion, greater stability.

**PLUS LOW LOADING HEIGHT
COMPACT DESIGN • BIG ENGINE**

£920
deld.

Thwaites

THWAITES ENGINEERING CO. LTD Cubbington • Nr Leamington Spa



Make your money work as hard as you do!

When you're adding to your plant, or purchasing new machines there's no need to make big inroads into your capital. Acquire them instead with the help of British Wagon Finance, and leave those valuable reserves to work in other ways. The terms of the B.W. Finance Plan are extremely economical. Flexible too, and everything is so straightforward. The manager of your local British Wagon branch is always ready to give you friendly and practical advice. Have a word with him.



Our leaflet 'Financing the Cost' gives you full details of how the British Wagon Finance Plan can help you. Let us send you a copy.



Member of the Finance Houses Association

Head Office:

Moorgate, Rotherham, Yorks. Tel. Rotherham 5466

Southern Head Office: Rotherham House, Grosvenor Crescent, London, S.W.1. Tel. Belgravia 8000



BW/M/17

3rd GOLIATH for PETERBOROUGH QUARRIES LTD

GOODWIN

Now in operation at their Ropsley Quarry in Lincolnshire, this Goodwin Primary Crushing Plant is the third acquired by Peterborough Quarries Ltd. Outputs from this new plant, a 30" x 18", range from 50—120 tons per hour depending on crusher settings. The full range of Primary Plants together with capacities shown below.



For particulars of all Goliath Mobile Crushing, Screening and Storage Plants, please write for Catalogue No. 1780.

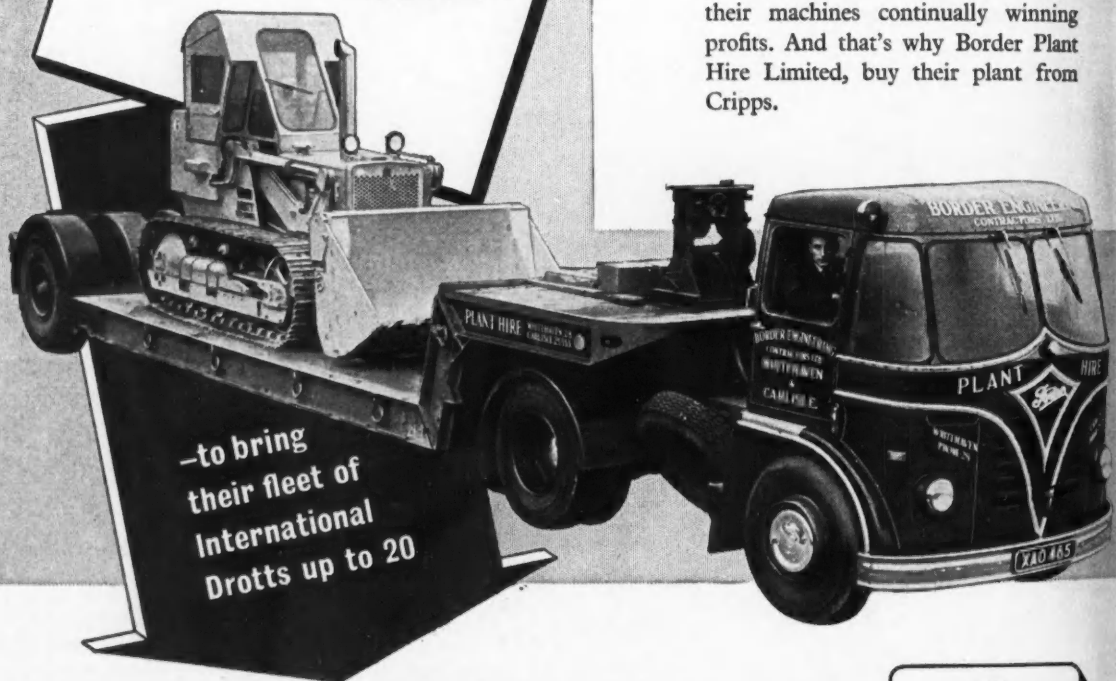
GOODWIN PRIMARY CRUSHING PLANTS							
CRUSHER SIZE	CAPACITY T. P. H						
	Minimum Setting	Approx. capacity in Tons at various settings (100% crushed)					
ins. mm.	ins. mm.	2½" 57 mm.	3" 76 mm.	4" 102 mm.	5" 127 mm.	6" 153 mm.	8" 204 mm.
24 x 15 610 x 381	2½" 57	25-35	40-45	45-55	55-70	—	—
30 x 15 762 x 381	2½" 57	35-40	45-55	60-70	70-80	—	—
30 x 18 762 x 457	3" 76	—	50-60	70-80	90-100	100-120	—
36 x 24 914 x 610	4" 102	—	—	80-90	100-120	120-150	150-180

GOODWIN BARSBY & CO. LTD. LEICESTER

BORDER PURCHASE YET ANOTHER!

Border Plant Hire
Limited take
delivery of their 4th
International

9K-3 DROTT



—to bring
their fleet of
International
Drotts up to 20

BORDER PLANT HIRE LIMITED, OF WHITEHAVEN AND CARLISLE—believe in International construction equipment—believe in Cripps too. They recently enlarged their already impressive fleet of International crawlers to twenty-three machines, which makes them the largest plant hirers in the North West. When they purchase, Border Plant Hire look for Service—just as much as performance. They know that it keeps their machines continually winning profits. And that's why Border Plant Hire Limited, buy their plant from Cripps.

CRIPPS

for the finest on tyres and tracks!



R. CRIPPS & COMPANY LIMITED

ESTABLISHED 1891

NOTTINGHAM, Tel. 71161. MANCHESTER, Tel. Trafford Park 1658. SHILDON, (Co. Durham) Tel. 261.

MISCELLANEOUS ITEMS, BUILDINGS, PROTECTIVE CLOTHING, FENCING, TARPULINS, ETC.

NOTICE—Orders for advertising are accepted on the understanding that the Editor may make any alterations in an advertisement to ensure its conformity with the style and standards of "The Contract Journal." The Proprietors reserve the right to suspend, cancel or refuse an advertisement without stating any reason. No undertaking is given that an advertisement will be published on any specified date. Communications which are not actual orders in the advertisement will not be forwarded. The Proprietors reserve the right to open communications and to withhold them not in accordance with this rule.

TANKS FOR SALE. Three 10,000-gallon cylindrical tanks, 25ft. x 9ft. x 1/2 in. Fitted with A. K. Waugh, 400-V, 3,000-W. Manuf. dated 12/53. Used, but like new. Painted green. £200 each. I.O.V. Photograph on application. **BROOKLYN ENGINEERING,** 187 Hursley Road, Chandler's Ford, Eastleigh. Tel.: Chandler's Ford 2281.

AIRCRAFT HANGARS, sold as fully reconditioned. Erection and Cladding Service. Several types available. **NEW STEEL STRUCTURES.**—Designed, Fabricated and Erection.

HEYMAN CONSTRUCTIONS, LTD., Priests Road, Dartford, Kent. Tel.: Dartford 26331.

TRENCH SHEETING, 13in. centres to overlap, in lengths 6ft. to 16ft., also STRUTS, Sizes 1 to 3. For SALE and HIRE.

PLANT AND BUILDING EQUIPMENT, LTD., 1 Chislehurst Road, London, S.W.11. Battersea 9213.

HIRE—HIRE—HIRE. PROPS, FLOOR CENTRES, ROADFORMS, STRUTS, "H" FRAMES, etc.—Contact: C. EVANS AND SONS, LTD., Burnside Wharf, Burnside Street, Bow, London, E.3. Tel.: ADVance 5691-3.

TARPAULIN HIRE
JOHN MACNAMARA & CO. LTD.
BUSH ROAD, LONDON, S.E.8
BERMONDSEY 3275 & 1435

PODMORE LADDERS
WOOD OR ALUMINIUM
Quality Ladders for all needs.
Extension 2-piece and 3-piece,
all sizes up to 60 ft. extended.
Pole ladders, Trestles, Steps.
KEEN PRICES, QUICK DESPATCH
PODMORE WORKS Ltd
769-773 GARRATT LANE,
LONDON, S.W.17.
Phone:—
WIMBLEDON 7622

● call
ADVANCE
5691/2/3

FOR ALL YOU NEED IN
Reconditioned and New
SCAFFOLD TUBE
(Steel and Alloy)
PUTLOGS (Steel and Alloy)
FITTINGS • "H" FRAMES
BOARDS • PROPS • STRUTS
TRESTLES AND SPLITHEADS
FLOOR CENTRES
COLUMN AND BEAM CLAMPS
ROAD FORMS
● YOU CAN'T BUILD WITHOUT US

Evans of Bow
C. EVANS & SONS LTD., Burnside Wharf,
Burnside Street, Bow, London, E.3

CLASSIFIED ADVERTISEMENT RATES:
PLANT AND MISCELLANEOUS
Four lines or less 14/-, and 3/- for every additional line.
Box number 1/- extra.
Display £2 10s. per single column inch.

FLYOVER FOR SALE.—CUBITT'S FITZPATRICK SHAND have available for SALE in the spring a TEMPORARY VIADUCT used on the Park Lane Improvement Scheme. This will have been in use for about one year only. Cost £29,000. Overall length 740ft. maximum height to surface 17ft. 6in., width 25ft., catwalk width 2ft. 6in. Max. gradient 1 in 18. Contains approx. 165 tons of steel. Price £17,500.—Apply to: **LEMAND MACHINERY, LTD.,** Rowsley, Matlock, Derbyshire. Tel.: Darley Dale 3391.

WANTED.
6in. dia. S. and S. SPUN-IRON PIPES, Class "B."
5in. dia. S. and S. SPUN-IRON PIPES, Class "B."
4in. dia. S. and S. SPUN-IRON PIPES, Class "B."
3in. dia. S. and S. SPUN-IRON PIPES, Class "B."
6in. dia. S. and S. SPUN-IRON PIPES, Class "D."
Any quantities up to 500 lin. yd. of each.
Write Box M.5192, "The Contract Journal."

KWIKFORM UNIT FRAMES 1,000 available x 2ft. 3in., 200 x 6ft., in good condition. Contact: **C. EVANS AND SONS, LTD.,** Burnside Wharf, Burnside Street, Bow, London, E.3. ADVance 5691-3.

500 tons STEEL

Sound S/H R.S.J. and ANGLES, etc.
New stock rusty M.S.R.
Immediate delivery from stock
A. F. SIMPSON, LTD.,
68/70 Penne Road, London, S.E.25.
Telephone: SYDenham 3131/5

SPECIAL OFFER OF LARGE SIZE TUBE

10in. Tube in lengths up to 40ft.
12in. Tube in lengths up to 40ft.
14in. Tube in lengths up to 20ft.
15in. Tube in lengths up to 20ft.
16in. Tube in lengths up to 40ft.
18in. Tube in lengths up to 25ft.
20in. Tube in lengths up to 20ft.

All of these sizes can be supplied plain ends or flanged. Also in stock a quantity of 24in. Tube, flanged in lengths of approximately 24ft.

Large stocks of smaller size Tube always available.

MIDLAND IRON & HARDWEAR CO. (Cradley Heath), LTD.
CRADLEY HEATH, STAFFS

Telegrams: Pipes, Cradley Heath Telephone: Cradley Heath 66364-5-6

FOR SALE.
TIMBER BUILDINGS: 25ft. wide, from 40ft. to 140ft. long; 28ft. wide, from 50ft. to 150ft. long; 30ft. wide, from 60ft. to 160ft. long. With or without floors.
NISSSEN HUTS: 36ft. x 16ft., from £50; 36ft. x 24ft., from £70; 36ft. x 30ft., from £90.
ROMNEY ALL-STEEL BUILDINGS: 96ft. x 35ft., from £350.
F. JAMES AND SONS, Newport Pagnell 18 and 19.

ERECTION MASTS FOR HIRE. To lift from 1 to 20 tons, 30ft. to 150ft. Block and Tackle, Hand-operated WINCHES. From £1 per day.—**STOKES OF CAMBRIDGE, LTD.,** Trinity Hall Farm, Milton Road, Cambridge. Telephone 53218.

EX GOVERNMENT MILLS 90° SCAFFOLD CLIPS. delivered free in quantity within 100 miles: 100 at 2/6 each; 500 at 1/6 each; 1,000 at 1/3 each; 5,000 at 1/- each.—**J. T. LEAVESLEY, LTD.,** Alrewas, Burton-on-Trent, Staffordshire. Tel.: Alrewas 354/5/6.

SLEEPERS suitable for temporary roads. **CROSSING TIMBERS** from 9ft. to 15ft., size 12in. x 6in. and 14in. x 7in.—**KENNETH SHEPLEY,** 73 Boodle Street, Ashton-under-Lyne, Lancs. Tel.: AShton 3338.

HARDWARE, ASHES, supplied anywhere Surrey. **11 BTDG and COMPRESSOR FOR HIRE**—keen rates. **ENGINEERING SUPPLIES AND INDUSTRIAL DEVELOPMENT CO., LTD.,** 28A Wood Street, Kingston, Surrey. Telephone. KINGston 8898.

APPROX. 200 tons RE-LAYABLE 75lb. R.B.S. FLAT BOTTOM RAILS, 36ft. and Accessories. With or without Concrete Sleepers.—**W. H. ARNOTT, YOUNG AND CO., LTD.,** Tontine Chambers, Dixon Lane, Sheffield. 1.

SLEEPERS

LARGE STOCKS. ALL GRADES.
PROMPT DELIVERY.

BUNTING, Mansfield Road, ASTON
Telephone: Aston Common 259. near Sheffield

ACROW PROPS

Accurately straightened by machine.
Repaired. Repainted.

Regular collection and delivery service.

We will quote for any quantity.

WRIGHT ENGINEERING CO.

Back Lane, Burley-in-Wharfedale, Yorks.

Telephone: 3235

FENCING

W. A. SKINNER & CO. LTD.
LONG DITTON, SURREY
Phone: EMBERBROOK 1966-1961

SUPPLIED AND ERECTED IN ANY DISTRICT

CHANGE to OIL!

DO AWAY WITH DIRT & STOKING
SAVE TIME AND MONEY

TERRIFIC HEAT

THIS IS A GENUINE £30 HEATER for only

£9.19.6

• ECONOMICAL—SAFE—ODOURLESS—SMOKELESS—TERRIFIC HEAT. NOISELESS.
• COMPACT. BUILT TO LAST.
• 35,000 B.T.U.'s per hour (approx. 12K.W.). • HEATS UP TO 12,000 cu. ft. • BURNS from 1/2 pint min. to 3 pints max. PER HOUR. (Av. running cost: 3/4d. per hour). • NO SPECIAL INSTALLATION REQUIRED.
• SIMPLE TO OPERATE WORKING INSTRUCTIONS SUPPLIED. • COMPLETE with 5 SECTIONS of 4" STOVE PIPE COWL. 13' length of flexible feuillasse, Jerrican adaptor & control & lighters not normally supplied with this type of heater and worth 42/6 alone. N.B. Runs on any commercial grade paraffin @ from 1/7 per gallon.

STOP PRESS—COAL PRICES UP. OIL PRICES DOWN... makes this heater more fantastic value than ever. Over 5,000 in use throughout the country. Ideal for Garages, Workshops, Canteens, etc. Especially suitable for buildings where there is a constant loss of heat.

Send for Illus. Leaflet or see Demonstration Model at Edgware. Open until 6 o'clock on Monday to Saturday. Obtainable only from us.

D. A. MULLARD & CO. LTD.

B.R. Goods Depot (Dept. 8), Station Rd., Edgware, Middx. EDG. 5574.

JERRICAN STORAGE TANK
OPTIONAL EXTRA
12/6 plus 3/6 carr.



SPECIAL NOTICE
This type of heater was not subject to the recent Govt. Inquiry into Portable Domestic Oil Heaters. It was manufactured to withstand the most rigorous service conditions, including outdoor operation. Carr. charges England and Wales. Elsewhere extra.

COLOSSAL PURCHASE OF EX GOVT. AMERICAN DESIGN OIL BURNING SPACE HEATERS



MISCELLANEOUS ITEMS, BUILDINGS, PROTECTIVE CLOTHING, FENCING, TARPAULINS, ETC.

RAILWAY SLEEPERS, sound second-hand, cart road quality: 1-49 at 12/3 each; 50-99 at 11/9 each; 100 and over, 11/3 each.

TARPAULINS, second-hand, overhauled, with ropes and eyelets, 18ft. x 12ft., £6 13s. each; 18ft. x 15ft., £7 17s. each.

Immediate delivery from stock.

A. F. SIMPSON, LTD.,
68/70 Penge Rd., London, S.E.25. SYDENHAM 3131/5.

GREASE GUNS, heavy duty, 70 per cent. oil list price, Tecalemit, 29 1/2 oz. flexible tube, hexagon head, hand lever operated, brand-new condition, 60/- each, six at 55/-, 20 at 48/-, Hydraulic head, 10/- extra.

CROMWELL CO., Newport, Mon. 59045.

BEAM CLAMPS, COLUMN CLAMPS, ROADFORMS, FLOOR CENTRES, TRENCH SHEETS, STRUTS, etc., and all types of Non-Mechanical Equipment. For SALE and HIRE.

PLANT AND BUILDING EQUIPMENT, LTD.,
1 Chaffield Road, London, S.W.11. BATTERSEA 9213.

FOR SALE, ex Government PONTON CENTRES, 20ft. x 6ft. 6in., easily coupled and ideal for portable landing stages, temporary harbours, bridging, etc. Only £10 each. — J. T. LEAVESLEY, LTD., Alrewas, Staffordshire. Telephone: Alrewas 354/5/6.

WANTED, genuine sound old OAK FLOORING, T. and G. or P.S.E., up to 9in. wide, to cover 400ft. super. — THOMAS BARKER AND SONS, Builders, 14 Swan Street, Loughborough.

WANTED: BRICK and CONCRETE Hardcore, any quantity. — R. BARKER (PECKHAM), LTD., New Cross 3337.

Graded CALCINED FLINT

The new white durable AGGREGATE for exposed renderings, road markings etc.

Trent Aggregate Co.
Dilhorne Road, CHEADLE, Staffs.
CHEADLE 3287

PODMORE SITE HUTS

Prompt despatch
Keen prices
High quality
Phone:—
WIMBLEDON 7622



PODMORE WORKS Ltd.,
749-773 GARRATT LANE, LONDON, S.W.17

NEW TARPAULINS

EXACT SIZES ONLY

JUTE, 16oz. before green wax proofing: 12ft. x 9ft. each 82/6, 15ft. x 12ft. each 132/6, 18ft. x 12ft. each 152/6, 21ft. x 15ft. each 204/6.

FLAX, 16oz. before green chemical proofing: 12ft. x 9ft. each 87/-, 15ft. x 12ft. each 149/6, 18ft. x 12ft. each 166/6, 21ft. x 15ft. each 237/6.

COTTON DUCK, 14oz. before green chemical proofing: 12ft. x 9ft. each 104/3, 15ft. x 12ft. each 162/6, 18ft. x 12ft. each 186/6, 21ft. x 15ft. each 258/6.

BRAND NEW SHEETS, carriage paid England and Wales. Fitted long ropes, brass eyelets and strengthening patches.

ANY QUANTITY FROM LONDON STOCK

JOHN MACNAMARA & CO. LTD.
BUSH ROAD, DEPTFORD, LONDON, S.E.8. BER. 3275-1435

NISSEN-TYPE HUTS for SALE. Prompt dispatch of 16ft., 24ft. and 30ft. wide Huts; also Romney Huts, 35ft. wide, and BLISTER HANGARS, 86ft. 6in. and 91ft. wide. These buildings are in various lengths and comprise steel framework with galvanised corrugated steel sheeting.—Full details from Dept. (128).

J. THORN AND SONS, LTD., Brampton Road, Bexleyheath, Kent. Telephone: Bexleyheath 0021.

PREFABRICATED STEEL-FRAMED BUILDINGS from stock: 30ft., 40ft., 50ft., 60ft., 75ft., 100ft. clear spans, and lengths in increments of 12ft. 6in. Sheetings may be either asbestos or galvanised.—Write for Catalogue Ref. K.104, from THE LILLESALL CO., LTD., Oakengates. Telephone: Oakengates 120.

DERBYSHIRE LIMESTONE, all grades, dry or tarred, up to 200 tons per day, or graded smaller sizes available, delivered to site.

GEORGE DAVIS (HAULAGE), LTD.,
2 Bosworth Road, Nottingham. Telephone 84819.

WANTED: CORRUGATED STEEL SHEETS, Second-hand. Any area. Sites cleared. Prompt payment.—J. DUFFY, Bank Street, Clayton, Manchester, 11. Telephone: East 3361.

FOR SALE, 3,000 Second-hand CONCRETE SLEEPERS, with S.I. Chairs for 95lb. R.B.S. Rail, W. H. ARNOTT, YOUNG AND CO., LTD., Tontine Chambers, Dixon Lane, Sheffield, 1.

STEEL PLATES and SECTIONS to size. Also TUBES up to 10in. n.b.—E. STEPHENS AND SON, LTD., Bath Street, E.C.1. Tel.: CLE. 1731.

REQUIRED, 150yd. second-hand 4in. or 5in. FLANGED STEEL TUBE.—LANE BROTHERS (MANSFIELD), LTD.

RAILWAY

SLEEPERS

100,000 in Stock All Grades

Delivered by road anywhere

Apply: H. BRIDGES, Contractors,
Kingsbury Road, Minworth, Sutton Coldfield
TELEPHONE: ASHFIELD 2071/2
or Cotstone Quarries, Broadway, Campden
TELEPHONE: CAMPDEN 220

FOR SALE

8,000 lengths 1 1/2" bore 1 1/8" outside diameter steel scaffolding in 12 foot lengths 13/- each.

40,000 Mills type scaffolding clips 1/- each.

L. W. VASS LIMITED

AMPTHILL • BEDFORD

Telephone: AMPTHILL 3255/7



FOR ALL YOU NEED IN

Site Roads & Fencing, Sleepers,
Sommerfeld Track & Fence,
Pierced Steel Plank

YOU CAN'T BUILD WITHOUT

Evans of Bow

C. EVANS & SONS LTD., Burnelde Wharf, Burnelde Street,
Bow, London, E.3. Telephone: ADVance 5681/2/3

MILD STEEL and CAST-IRON PIPES. Large stocks available, including material. Plain, Screwed, Flanged, Victaulic, Union, Johnson, etc., including the following sections:

500ft. 48in. Welded.
2,000ft. 36in. Welded.
900ft. 28in., 1,000ft. 27in., 800ft. 26in., 700ft. 24in., 1,000ft. 24in., 700ft. 12in. Unused Bitumen Lined and Wrapped.

800ft. 14in. o.d., 1/2in. thick, Welded, unused.
3,000ft. 12 1/2in. o.d., 1/2in. thick, Seamless, A.P.I. Quality.

2,000ft. 10in., 1/2in. to 5/16in. thick, Second-hand, 300 x 12ft. lengths 10in. Unused Stanton Cast-iron Flanged, Class "D".

2,000ft. 8in., approx. 1/2in. Second-hand.
20,000ft. 6in., 1/2in. thick, Unused, A.P.I. Quality. Bitumen Wrapped.

10,000ft. 6in., 1/2in. thick, Unused, A.P.I. Quality. Bitumen Wrapped.

10,000ft. 1 1/2in. Galvanised, Second-hand.
80,000ft. 1 1/2in. Scaffolding, 16ft. lengths.
4,000ft. 1in., Galvanised, Class "B".

6,000ft. 1/2in., Galvanised, Class "B".
Bends, Tees, Valves, etc., to suit. Please ask for complete list.

FRED WATKINS (ENGINEERING), LTD.,
Coleford, Glos. Telephone: Coleford 2271-5

FOR SALE, 12-ton Duff Norton Type PRIMA JACAL head and toe lift. Unused. Ex Ministry, Complete with handle, £9 10s. each.—MABEY AND JOHNSON, LTD., 54 Victoria Street, London, S.W.1.

C. EVANS AND SONS, LTD.—Moving with the times.—See INDEX and this Section for other advertisements.

"C" PRODUCTS LTD

Boundary Road, Woking, Surrey

Telephone: 5751

Burrfields Road, Copnor, Portsmouth

Telephone: 61410

FOR

Ashes • Breeze
Graded Clinker

Challenger

Ladders
Steps
Trestles and
Lightweight
Staging

The largest stock
in the trade
for sale or hire

Youngman

CONTRACTORS' PLANT DIVISION

Wandsworth Road, London, S.W.9

Telephone MACaulay 2233.

STEEL REINFORCEMENT

ALL DIAMETERS

A COMPLETE
REINFORCEMENT SERVICE
DESIGN • SUPPLY • CUT
BEND • LABEL
DELIVER and FIX

Let us have your specification for all or any part of these services and we will quote you our competitive prices delivered works or site.

Telegraphic address: Steeloruf, Barking, Telex.

Telam 21194



Write or Phone your requirements

WELBECK

(STEEL STOCKHOLDERS) LTD.

STEEL WHARF, RIVER RD., BARKING, LONDON

Telephone: RJPleury 5751-4

ELECTRICAL EQUIPMENT, SPARES AND OVERHAULS, VEHICLES AND ANCILLARIES

CYLINDER HEADS.—Caterpillar, International, Ruston, Diamond T, B.M.C., A.E.C., Gardner, etc., perfectly repaired by our special "FUSION WELDING PROCESS," no matter how badly cracked. Finished, machined, tested, standard. Also repairs to Crankcases, Sumps, Differentials, etc. Axles, rear and front, reconditioned. Exchange P6, R6, P4 Heads. Established 40 years. Satisfaction guaranteed.—**ANGELL AND WILLIAMS (PECKHAM), LTD.**, Sumner Road, S.E.15. Telephone: ROdney 3559.

WITHOUT FEAR OR FAVOUR, the Matbro is the best fork truck for the timber and concrete trade. Opportunity to PURCHASE a current Series III Matbro Diesel FORK LIFT TRUCK, 6,000lb. capacity, 12ft. lift, torque converter, power steering. One owner. Good condition throughout. History and photograph available. Price £1,495. Terms available.—**MATHEW BROS.**, Matbro House, Beddington Lane, Croydon, Surrey. Telephone: Thornton Heath 3402.

FOR SALE. Bedford 30cwt. LORRY. L.W.B. Bedford 2/3-ton TRUCK. S.W.B. Bedford 5-ton Diesel TIPPER. E.R.F. 7-ton Diesel TIPPER. Ford Thames 5-ton TIPPER, 4D Diesel. **SOUTH MIDLANDS ENGINEERS**, Shipston-on-Stour. Telephone 612 and 624.

BATTERIES.—New ex M. of S. Sealed. Boxed. Lead acid: 6-Volt 75-Amp/hr., £2 10s.; 12-Volt 153-Amp/hr., £15; 12-Volt 170-Amp/hr., £16 10s.; 24-Volt 85-Amp/hr., £14; 24-Volt 170-Amp/hr., £25. Send for lists.—**R. HYDE, LTD.**, 445 Staines Road West, Ashford, Middlesex. Telephone 2572.

FOR SALE. Standard Vanguard Diesel ESTATE CAR, overdrive, heater, one owner, excellent condition. Ideal contractor's vehicle.—**BANNISTER AND AUGER (PLANT), LTD.**, Springfield Road, Chelmsford. Telephone: Chelmsford 4881.

COSTAIN MINING, LTD., Acorn Bank Opencast Coal Site, Harflit Road, Bedlington, Northumberland, have for SALE: D8 Series 7J SPARES. D4 Series 7J SPARES. Offers.

R.Y.E-ARC PLANT HIRE DIVISION.—Speed your WINTER CONTRACT with our GENERATORS for power or lighting.—Telephone: Albert Dock 4381.

R.Y.E-ARC PLANT HIRE DIVISION.—Diesel and Electric Transformer WELDING SETS, also Double operator WELDING SETS.—Tel.: Albert Dock 4381.

GUARANTEED USED TRACTOR/CRAWLER SPARES - 300 TRACTORS ALWAYS IN STOCK FOR DISMANTLING - EQUIPMENTS - WINCHES TRACKS - ROLLERS - HEADS, ETC. SHELTON TRACTOR SPARES LTD. BULBY, BOURNE, Lincs. Tel: EDENHAM 223-4

SERVICE FOR RUSTON & PAXMAN ENGINES

Consult

Wheatley & Whiteley99 KIRKSTALL ROAD, LEEDS, 3
Tel. 31122

WELDING SENIOR - HIRE - SERVICE

MUREX - LINCOLN - PETBOW

Double or single operator plants
30-600 amp diesel or electric
Arc cutting for cast pipes & castings
Gas cutting equipment
Skilled operators if required

K. J. SENIOR & Co., Ltd.

FORDWATER TRADING ESTATE

CHERTSEY, SURREY. Tel: Chertsey 2950

PLANT SPARES.

Pair of TRACKS for D4, with Plates.
Pair of Sprockets for D4.
Two DONKEY ENGINES for D4.
Two MAIN ENGINES for D4, 71 and 2T.
Two MAIN ENGINES for D2.
Two Meadows 6-cyl. for Challenger 3.
Set of L.P.C. DOZING EQUIPMENT for D4, wide gauge or standard.
Set of R.B. DOZING EQUIPMENT for TD6-9-14 and 18s.
Set of Bray DOZING EQUIPMENT for Challenger 3.
Bray DOZING EQUIPMENT for Fowler VF.
G.M. ENGINE for HD7, as new.
DOZING EQUIPMENT for HD7, 10 and 14.
HD14 TRACKS, ROLLERS and SPROCKETS.
Two Ford D ENGINES.
Three P6 ENGINES for Fordson Lorry and Tractor.
Hyster LOGGING WINCH for D4.
L.Y. Double Drum WINCH for D8 and D4.
Set of TRACKS for D8, with Rollers and Sprockets.
Carco LOGGING WINCH for TD14-9 and 6.
P.T.O. SHAFT, red type, for HD9 and 6.
Set of TRACKS and ROLLERS for TD14.
TD14 ENGINE, with Starter.
LIGHTING and STARTING SET for TD10 and 9.
Suntrac CAB for TD6, as new.
P24 WINCH for TD18.
Buckeye WINCH for HD14 and 7.
Set of TRACKS for D2, and Rollers.
Brookhouse TRAILER, ex R.A.F., 4-wheel.
P.T.O. SHAFT for D4 and 2.
Set of TRACKS for TD9, and Sprocket.
Three TD9 ENGINES, complete.
Four TD6 ENGINES, complete.
TD14 CYLINDER HEAD, as new.
D2 5U Model CYLINDER HEAD, new.
D4 HEAD, as new.
Allis HD14, 10, 7 and 5 CYLINDER HEADS.
DOZING EQUIPMENT for Ford County, new type.
Bray DOZER EQUIPMENT for Fowler VF.
10RB JIB and FAIRLEAD.
Ransomes 410 EXCAVATOR, in excellent condition.
Broughton TIMBER WINCH for Track-Marshall, as new.
Dismantling all makes of CRAWLER TRACTORS.
Inquirers for any part welcomed.

NELSON M. GREEN,
Kirkby Underwood, nr. Bourne, Lincs. Dowsby 285.

FOR SALE.

One 1960 L.W.B. DeLuxe LAND-ROVER, Petrol, genuine mileage 7,000, £585 o.n.o.
One 1957 Bedford Petrol Syd. TIPPER, £195.
One 1954 5-ton Albion Diesel, platform body, ex well-known brewery, taxed, £275.
Four 1953 5-ton Morris Diesel, taxed, platform bodies, £125 each.
One 1951 1,000-gallon Bedford PETROL TANKER, £125.
One 1951 5 Type Bedford ARTIC. UNIT, fitted Comet Engine, with 10-ton Tasker Low-loading Trailer, knock-out axle, 16ft. well, Scammell attachment, £650.
One 6-ton LOW-LOADING TRAILER, 16ft. well, 24 x 7 tyres, 4-in-line, Scammell attachment, £225.
One 25ft. POLE TRAILER, all-steel, 900 x 20 tyres, twins all round, 4-wheel brakes, £275.
One 22ft. Berkeley TRAILER CANTEN, fully equipped, including tea urn, frig., etc.
One R4 Caterpillar BULLDOZER, rope-operated, T.V.O., £250.
One Aveling CALDOZER, Petrol, £100.
One 2½-ton Greens Petrol ROLLER, £250.
Part exchanges welcomed.
Apply: Thoby Priory, Thoby Lane, Mountnessing, Essex. Telephone: Ingatestone 419 anytime.

J. J. JOHNSTON AND CO., LTD., for REPAIRS, OVERHAULS and FIELD SERVICE to all types of Contractors' Plant, Mobile Cranes, etc.—Phone Elgar 6905. RAIPER SPARES AND SERVICE, Coronation Road, Park Royal, London, N.W.10.

ALTERNATORS and LIGHTING SETS, 3-kw to 75-kva, A.C. or D.C., for HIRE, WELDING SETS, 3/400-Amps.—**REEDS CRANES AND PLANT HIRE, LTD.**, Newcastle on Tyne. Telephone 33311.

BRISTOL ANGLEDOZERS and EQUIPMENT. Immediate SPARES and REPAIR Service for all models.—**H. A. SAUNDERS, LTD.**, Main Distributors, The Butts, Worcester. Telephone 26651.

NEW SCRAPER TYRES, Goodyear, etc., 1800 x 24 x 16, two-thirds cost, with Tube and Flap, £80 each.—Telephone: Hounslow 8831.

WHITLOCK MOBILE SITE OFFICES



WHITLOCK BROS LTD • GREAT YELDHAM ESSEX • Tel. 305

RUSTON POWER TO SERVE YOU
From stock: SERVICE EXCHANGE ENGINES Types VRON, VROHN, VRHN, VCBN, YEN, VCBN, and PAXMAN RANGE. Full range of ENGINES from 10RB to 110RB. SERVICE EXCHANGE ENGINES. Cranes, Locos., Pumps, Power Packs, etc. CHANGEOVERS to EXCAVATORS and other PLANT. UNDERTAKEN on site by STAFF of competent FIELD ENGINEERS.

TILSLEY AND LOVATT, LTD., Engine and Plant Division, Newstead Trading Estate, Trentham, Stoke-on-Trent. Telephone: Trentham 57331 and 57332. Telegrams: "Diesel," Stoke-on-Trent.

NEW Government surplus TYRES: 900 x 20 14s. £18; 1050 x 20 Track Grip, £23; 1000 x 16-ply Earthmover, £70; 1200 x 24 8-ply £16-ply, £35; 1400 x 24 16-ply, £70; 2100 x 20-ply, £190; Reugged, £55.—**L. W. VASE, LTD.**, Amphil, Bedford. Telephone: Amphil 2550.

JACKS and HYDRAULIC EQUIPMENT "FACTORY SERVICED." Experienced personnel and equipment ensure rapid, reliable and complete overhauls.—Hydraulic Division, **WILLIAM MOSELEY (ENGINEERS), LTD.**, Bedford Road, Feltwell, Notts.

FOR SALE—TRAILERS. Several 8-ton TRAILER CHASSIS, S.A.E., £100, air brakes; Dollies, two 8-ton, S.A.E., £100; 20-ton, 1400 x 20, £120.
Halton Gate Farm, Astmoor, nr. Runcorn (Cheshire).

HANOMAG SPARES, ENGINES and GEARBOXES, etc., for SALE. New and second-hand. **DOUGLAS - HAMILTON, LTD.**, Tunbridge Wells. Telephone: Southborough 1538.

FOR SALE. 50-ton HYDRAULIC JACKS, latest model, by Messrs. Tangeys; used once only on bridge raising contract and as new.
Write Box E.5187, "The Contract Journal."

WE BUY REPLACEMENT PARTS for Caterpillar Tractors.—Send offers to Box Q.Q.396, "The Contract Journal."

BEDFORD WORKOBUS, 1959, 21,000 miles, 12-seater, L.W.B., heater, roof-rack. Excellent condition, £370 o.n.o.—Telephone: Epping 280.

PLANT FOR SALE. Two D7 reconditioned CYLINDER HEADS.—**DOUGLAS-HAMILTON LTD.**, Tunbridge Wells. Tel., Southborough 1538.

For prompt delivery of...



ENGINES • SPARES • SERVICE

...get in touch with

LEWIS & LEWIS LTD.

SCHOOL RD., NORTH ACTON, LONDON, W.3

ELGAR 6757 (4 LINES)

COACH SPECIALISTS of the SOUTH

always have available a

Large stock of Good Used

PASSENGER VEHICLES

many with C.O.F.s

Ideal for conveyance of staff

Yearly Road Fund Tax £15.10.0

BEDFORD 26 str. Coaches from £75

or suitable for SITE OFFICES, from £50

A.E.C., LEYLAND, etc., 33/35 str.

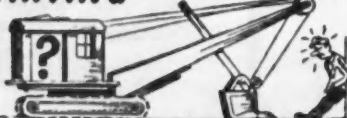
from £100

Let us demonstrate at your premises

E. J. BAKER & CO. (DORKING) LTD.

The Coach Works, Farnham Trading Estate

Farnham, Surrey. Telephone: 46047

WAITING

... Obviously not OUR Customer!

RUSTON-PAXMAN SERVICE

EXCHANGE ENGINES INSTALLED IN ALL TYPES OF PLANT DURING WEEK-ENDS OR TO SUIT CUSTOMER'S CONVENIENCE

TILSLEY & LOVATT LTD.

ENGINE & PLANT DIVISION NEWSTEAD TRADING ESTATE

TRENTHAM, STOKE-ON-TRENT, STAFFS

Telephone: Trentham 57331/3

Grams: "Diesel" Stoke-on-Trent

ELECTRICAL, SPARES AND OVERHAULS,
VEHICLES AND ANCILLARIES

BAND NEW Diesel POWER UNITS by Chrysler, 67-h.p., 1,800 r.p.m., complete on base plate, electric starting, radiator and drive coupling. Price £100 each to clear.

Light Diesel GENERATING PLANTS, 230-Volts, complete units with switchgear. Price £100.

BANNISTER AND AUGER (PLANT), LTD., Chelmsford 4881.

LOW-LOADING TRAILER, knock-out back axle, 15ft. well, vacuum brakes, tyres good, four 1050 x 20 rear, two 1100 x 20 front. Heavily constructed Good all-round condition. Buffalo 6-ton ROAD ROLLER, Petrol, in good order, bargain.

CRAWFORD, Agricultural Engineers, Moulton Chapel, near Spalding, Lincs. Moulton Chapel 377/8.

ROLLS-ROYCE SERVICE EXCHANGE ENGINES for Euclid 15-ton, 22-ton and 27-ton dump trucks. Delivered or fitted anywhere in U.K.—TILSLEY AND LOVATT, LTD., Diesel Engine Division, Trentham, Stoke-on-Trent. Telephone: Trentham 57331/3.

FOR SALE, One 4DL ENGINE, with Berger starter, baseplate, Anderson clutch, flat pulley and out-roller bearing. — Offers to H. BRAZIER, LTD., Wey 2151.

FOR SALE, Barber-Greene 44C Trencher SPARES, large quantity. Unused. Cheap to clear.

R.D. AND M. ENGINEERING CO., Sandy Lane, Dukinfield, Cheshire. Tel.: ASHTON-under-Lyne 2871/2.

FOR SALE—USED GOODS VEHICLES.

Two Foden 8-wheel double drive bulk body PINK TIPPERS, modern cabs, 6LW, £1,000 each. Hutton Gate Farm, Astmoor, nr. Runcorn (2386).

FRANK COWLEY

BUSES 200 COACHES

READY FOR YOUR JOB

£425

DELIVERED YOUR WORKS

WE SUPPLY YOU WITH
32, 33, 35 or 56 SEATERSINGLE or DOUBLE DECK
BUS or COACHEVERY MACHINE FULLY
GUARANTEED
WITH TEST CERTIFICATE6 UNUSED 900 x 20 TYRES
TAX PAID FOR 12 MONTHSNEW OR GUARANTEED
BATTERIES

FREE DELIVERY

NO EXTRA CHARGES

CHOICE OF
LEYLAND, A.E.C., BRISTOL
or GUY, ETC.WILL TAKE YOUR OLD VEHICLE IN
PART EXCHANGE

FRANK COWLEY

3 Blackfriars Road, Salford, 3

Phone: MANCHESTER BLACKFRIARS 7377
and BLACKFRIARS 1048

PLANT

FOR LIMAS

PLANT SALES LTD.

25 CASTLEMEAD STREET, LONDON, W.1
Telephone: PADdington 2663/4

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

CRANES FOR SALE FROM OUR OWN STOCK.

Test Certified before dispatch.

8½-ton Rapier Super Diesel/Electric, pneumatics.

5-ton Coles-Thornycroft, Series 7, Mk. 7, Wire Derrick.

5-ton Michigan Lorry Crane, Dorman Diesel, 25ft. Jib.

6-ton Rapier Standard Petrol/Electric, on solid rubbers.

2½-ton Morris Petrol/Electric, pneumatics, electric start.

4-ton New Staffa Diesel/Hydraulic, pneumatics.

2-ton Jumbo Junior Diesel/Hydraulic, pneumatics, 1½yd. Hydraulic Grab.

2-ton Neals NM, Ruston Diesel, pneumatics, 30ft. Jib.

2-ton Jones KL22, Diesel, pneumatics, 24ft. Jib.

2-ton Rapier 410, Perkins Diesel, tracks, 28ft. Jib.

Agents for New Cranes of all types.

Hire Purchase. Spares Service.

WILLIAM R. SELWOOD, LTD.,
Chandler's Ford, Hants. Phone 2981.

R.A.J. (MECHANISATIONS), LIMITED.

The J.C.B. Distributors.

NEW J.C.B.s EX STOCK AT CURRENT PRICES.

1960 J.C.B. 4, one Bucket, warranted, £2,150.

1959 Hydra-Digger/Loadall 65s, from £1,600.

1958 County Crawler/Hydra-Digger, Bray Angledozer, £1,750.

1957 Dinkum Digger/Dozaloader, one Bucket, new tyre, excellent condition, £750.

1957 B.M.C. Diesel Scammell, Articulated, flat platform, £450.

1956 Bedford 5-ton Petrol, Telehoist, Long-wheelbase, Tipper, £250.

Crankshaft Grinding, Remetalling, Reboring (immediate service) undertaken.

R.A.J. (MECHANISATIONS), LIMITED,
Harescott Garage, Shrewsbury.
Telephone: Shrewsbury 4695/6/7.
(night service) Shrewsbury 3882.

FOR SALE.

Caterpillar D4 2T, with L.P.C. Hydraulic Bulldozer, all recently overhauled, spot-on condition, £950.

Allen-Parsons 16/60 TRENCHER, cutter bars up to 5ft., Dorman 4DWD Engine, 16in. and 30in. Buckets, various spares and new teeth, £900.

ERNEST DOE AND SONS, LTD.,
Industrial Division, Ulling, Maldon, Essex.
Tel.: Hatfield Peverel 311; (night) 319.

FOR SALE.

Parker APRON FEEDER, 2yd. Hopper, 440/3/50 electric motor and starter, in excellent condition, £175.

VIBRATING SCREEN, Baxter, 6ft. x 2ft., c/w Frame, motor 440/3/50, £150.

Write Box P.5214, "The Contract Journal."

CIVIL ENGINEERING contractor has for SALE a

new 30RB EXCAVATOR with Equipment.

Write Box P.5230, "The Contract Journal."

19 & 33 R.B.s
T.D. & H.D.14s
MERTON OVERLOADERS
FOR HIRESAND & SHINGLE LTD.
FAGGS RD., FELTHAM, MIDDY.
FELTHAM 3045NEAL'S (PLANT HIRE) LTD
SERVE THE SOUTHImmediately available for hire on the
South Coast:—

Excavators, Tracto-Shovels,
Mobile Compressors,
Fergusons, Mobile Cranes,
10 BD 3 c.y. Diesel Rollers,
Petrol and Diesel Rollers,
Concrete Mixers, etc., etc.

All enquiries promptly dealt with

Phone - - Chichester 3777-8-9

IMPLEMENTS FOR SALE.

Opperman MOTOCART, excellent condition.

Ransomes T546 4F PLOUGHS, choice of four.

Ransomes 2F Jumbo OIL BATH LIFT.

Ransomes 3F Jumbo UN BODIES.

Ransomes 2F Jumbo and Subsoilers.

Ransomes 6F Hexetrac, as new.

Ransomes 12ft. DISCS, as new.

Ransomes 8ft. DISCS.

Bentall 8ft. DISCS.

Leverton-Heavey DUCKFOOT.

Ransomes C13 DRAG.

Ransomes 3F SEMI-DIGGER PLOUGH.

Ransomes Mounted POTATO SPINNER.

Four-wheel TRAILER CHASSIS, ex R.A.F., with Drawbar and 10 x 50 x 13 wheels, complete, as new.

Two-wheel TIPPING CART, as new.

Four-wheel SILAGE TRAILER, two off.

Four-wheel LOW-LOADER for TD9, etc.

Studebaker 6 x 6 TIPPING LORRY, excellent condition.

Ransomes DUOTRAC 2F, choice of three.

I.H.C. 3F 9A DIGGER/PLOUGH.

NELSON M. GREEN,
Kirkby Underwood, near Bourne, Lincs.
Telephone: Dowsby 285.

GENERAL ROADWORK, LTD.

OFFER FOR SALE:

7/8-ton Greens ROLLER, fitted Perkins P4 Diesel Engine, with Scarifier and Driver's Cab, year 1955, reconditioned.

8-ton Marshall ROLLER, fitted Perkins P4 Diesel Engine, with Scarifier and Driver's Cab, year 1951.

Weatherill 4HTW OVERLOADING SHOVEL, year 1957.

10-ton PORTASILO, with Pullway and Hopper.

14/10 Stothert and Pitt Diesel-driven CONCRETE MIXER.

10/7 7NT Millars CONCRETE MIXER, fitted with Weighgear, Diesel Engine, new 1959.

10/7 7NT Millars CONCRETE MIXER, fitted Diesel Engine, year 1960.

1½yd. Johnson DUMPER, fitted Pelter AYA2 Diesel Engine.

Mitcham Road, Croydon, Surrey.
Telephone: THORnton Heath 6989.

DROTT'S FOR SALE.—International BTD6 Drott

SKID-SHOVELS, new 1956/58, working machines, checked over, cleaned, resprayed and re-transferred, with 4-in-1 Bucket. Can be inspected at Old Windsor.

Price £1,950 to £2,200 each.

AXWORTHY AND COMPANY, LTD.

(Distributors for Hire),

Straight Road, Old Windsor, Berks.

Tel.: Windsor 3434 or 3384.

MANCHESTER AREA.—FOR SALE, Caterpillar D4

DOZER, fitted with L.T. Winch, Sound throughout.

Can be put straight to work.—ROSEHILL GARAGE

(DENTON), LTD., Manchester Road. Tel.: Denton

2926 and 2017.

Crescent Plant

FOR Frisch GRADERS

Send for full details

209 CRESCENT ROAD, BARNET, TEL: 2309

KEBRIC

PLANT LTD.

CONTRACTORS' PLANT FOR SALE

WACKER BS 50/K VIBRATING RAMMER, new £199 10s.

Single-Tool COMPRESSOR, Lister Diesel Engine, 52 c.f.m., new £399

PARKER 5/3½ CONCRETE MIXER, Potter Diesel Engine, new £180

ROAD MACHINES Cub Diesel DUMPER, 22½cwt., new £440

3 cu. yd. MUIR-HILL DUMPER, 10B, with 4D Fordson Engine £380

Large HIRE FLEET of J.C.B.s, DUMPERS, Drott SHOVELS, VIBRATING ROLLERS, etc.

PETER ENGINE SPARES

Telephone: HATCH END 6321

4 THE MEAD, CARPENDERS PARK

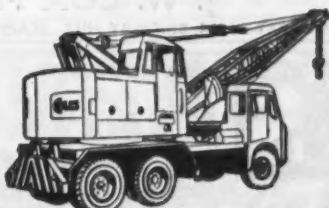
WATFORD

COVENTRY CRANE HIRE

PROPRIETOR: ALEC-STATHAM LTD.

BRANDON ROAD, BINLEY, COVENTRY

TELEPHONE: WALSGRAVE ON SOWE 3113



Lorry mounted Crane Hire fleet.

Capacity 2 to 25 tons.

Jib lengths to 120 ft.

Fly jibs to 20 ft.

Country wide service.

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

FOR SALE.

2,400 c.f.m. Bellis and Morcom/Bruce Peebles Two-stage AIR COMPRESSOR, 100/115 p.s.i., synchronous motor 6,600/3/50.
1,100 c.f.m. Browett-Lindley/Crompton-Parkinson Two-stage AIR COMPRESSOR, 100 p.s.i., slipring motor 400/3/50.
1,000 c.f.m. Alley and McLellan/English Electric Two-stage AIR COMPRESSOR, 100 p.s.i., slipring motor 440/3/50.
600 c.f.m. Browett-Lindley/L.D.C. Two-stage AIR COMPRESSOR, 100 p.s.i., synchronous motor 440/3/50.
Each complete with unloading equipment and motor control gear.

GEORGE COHEN SONS AND CO. LTD., Wood Lane, London, W.12 (Shepherds Bush 2070); Stanningley, near Leeds (Pudsey 2241).

FOR SALE. 24in. x 18in. Universal Cedar Rapid Portable Primary and Secondary STONE CRUSHING UNIT, powered by Caterpillar D7 Diesel Engines and with Diesel-driven Stockpiling Conveyors. Immediate delivery.—SAVILLE-CALVERT (MACHINERY), LTD., Harvester House, Stratford-upon-Avon, Warwickshire. Telephone 4242.

FOR SALE OR HIRE. 18/12 Benford Reversible Drum CONCRETE MIXER, complete with Weigher and Dragline. Recent complete overhaul. In first-class condition.—W. V. DAVIES, Concrete Mixer Service, Slinton-on-Stour. Tel. 525 and 612.

FOR SALE OR HIRE: Barber-Greene Junior, new 1957 and Barber-Greene Major, new 1959. RED. WATKINS (ENGINEERING), LTD., Coleford, Glos.

FOR SALE. 3-ton Light MONOTOWER, 75ft. Jib (new). Butters make. Write Box P.5057, "The Contract Journal."

CONCRETE SKIPS



BOTTOM DISCHARGE AND TIPPING TYPES
M. E. ENGINEERING LTD.
47 FINCHLEY RD., LONDON, N.W.3
HAMPSHIRE 7481-2-3

LOADER SALES & HIRE LIMITED

USED EQUIPMENT FOR SALE

1959 Weatherill 2HCRQ, Fordson Diesel Engine, Cab, 1/2 cu. yd. Scoop. Good tyres, rears 1400 x 24. Ex works£580

1958 Weatherill 2HCRA, Fordson Diesel Engine, Cab, 1/2 cu. yd. Scoop. Good tyres, rears 1400 x 24. Ex works£695

1957 Weatherill 2HCRQ, Fordson Diesel Engine, Cab, 1/2 cu. yd. Scoop. Good tyres, rears 1400 x 24. Ex works£750

1957 Iray BL30, Fordson Diesel Engine, All-weather Cab, 1/2 cu. yd. Scoop. Good tyres, rears 1400 x 24. Ex works£895

1956 Iray BL30, Fordson Diesel Engine, All-weather Cab, 1/2 cu. yd. Scoop. Good tyres all round. Very clean machine. Ex works£995

1956 Iray Crawler Loading Shovel, re-con. engine, 1 cu. yd. Scoop, 14in. tracks. Cab. Very good condition. Ex works£1,100

1960 Iray Ardua, Fordson Power Major Engine, Cab. Power steering, 1 1/2 cu. yd. Scoop. Excellent machine for handling coal or coke. Bargain. Ex works£895

Telephone: Ware 2398

STAR STREET, WARE, HERTS.

DUDLEY VALE, LTD.

OFFER FOR IMMEDIATE HIRE:
Johnson 1 1/2 cu. yd. Diesel DUMPS.
Delmag Diesel PILE HAMMERS, D5, D12 and D22.
G17T Delmag PILE FRAME, with Turntable. Diesel Winch.
Zenith PILE EXTRACTORS, Nos. 20 and 80.
McKernan-Terry PILING HAMMERS, 5, 6, 7 and 983.
Sykes No. 7 1/2 and No. 8 Double Drum PILING WINCHES.
STEEL SHEET PILES, Sections 1, 2 and 3, various lengths.
22RB, with Dragline and 70ft. Crane Equipment.
KL44 MOBILE CRANES, jibs up to 50ft., pneumatics.
Neals NMS 3-ton MOBILE CRANE, with Swan-neck jib.
Neals NM 2-ton MOBILE CRANES, 30ft./35ft. jib.
3 1/2-ton Vibro-Verken VIBRATORY ROLLER.
Stottern and Pitt 72T and 54T VIBRATORY ROLLERS.
C.P.T. Rotary 2-Tool COMPRESSORS, Portable, Diesel.
20-ton PORTASILLOS.
Ruston Diesel LOCOMOTIVE, 2ft. gauge, 25/30-h.p.
5-ton Electric DERRICK, with 120ft. jib and bogies.
10-ton 2-motor Electric DERRICK, with 120ft. jib and bogies.

DUDLEY VALE, LTD., 9 Palace Street, London, S.W.1. Tel: VICTORIA 0252.

SMITH 8 1/4 cu. yd. EXCAVATOR for SALE. Fitted with Backacter Equipment, including 30in. and 24in. wide Buckets, Petteer 3B Engine, new 1953. One owner, perfectly maintained, can be seen working. Apply: BAGGULEY AND BARKER, LTD., 133 North Sherwood Street, Nottingham.

BUCKET SPECIALISTS.—Special or Standard SHOVEL, TRENCHER, GRAB and DRAGLINE BUCKETS to suit all machines. Quick delivery.—Write or phone the makers: NORTONS PLANT HIRE, LTD., Billericay, Essex. Telephone: Ramsden Heath 365.

NETHERTON PLANT, LTD.

OFFER THE FOLLOWING PLANT FOR HIRE:
Allen-Parsons Diesel driven TRENCHERS, 12/21 and 16/60, with fully experienced operators.
B.S.P. HAMMERS and EXTRACTORS.
Spencer-Hopwood No. 16 BOILERS.
Jones CRANES, KL22 and KL44.
Electric DERRICKS, 5-ton 110ft., and 7-ton 120ft.
GENERATING SETS, 50-kW to 2-kW.
BARREL HOISTS and WINCHES.
20-ton PORTASILLOS.
Diesel driven CONCRETE SAW with skilled operator.
Attractive rates. Special terms for long hire periods.

NETHERTON PLANT, LTD., Dunning Bridge Road, Netherton, Liverpool, 10.



CRANES AT SHEFFIELD

MOBILE CRANES:
Jones KL15 Mobile Crane, 15cw capacity, 21ft. Swan Necked jib, Ruston Diesel Engine, four pneumatic-tyred wheels.
Neal Mobile Crane, Type CP, 20ft. Straight Lattice jib, Petteer AV1 Diesel Engine, four pneumatic-tyred wheels.
Jones Super 20 Mobile Crane, 2-ton capacity, 24ft. Straight Lattice jib, Lister Diesel, hand-starter, pneumatics. Safe Load Indicator.
Neal Type Q Mobile Crane, 4-ton capacity, 35ft. Lattice jib, Ruston Engine, pneumatics.
Taylor Jumbo Hydraulic Crane, 3-ton capacity Cantilever jib, Perkins Engine P6, pneumatic-tyred wheels, good condition.
Jones Super 40 Mobile Crane, 3-ton capacity, 25ft. Channel jib, Lister Engine, pneumatics.
Staffa Mobile Crane, 3-ton capacity, petrol, Cantilever jib, overhauled.
Smith Diesel-driven Crawler Crane, 10-ton capacity, 50ft. Lattice jib, Dorman Diesel Engine.
Neal 10cw capacity Gadabout Mobile Crane.

RAIL CRANES:
Two 15-ton capacity Coles Diesel/Electric Rail Shunting Cranes, Perkins P4 Diesel Engine, extended four-wheel carriage for shunting, standard gauge, 30ft. Tubular type jib to lift 15 tons at 10ft. radius, 50ft. Swan Necked Latticed jib also available. Full details on request.
5-ton capacity Smith Steam Loco. jib Crane, Serial No. 19711, new 1952, fitted 50ft. Steel Latticed jib, constructed to lift 5 tons at 21ft. radius, 4ft. 8 1/2in. gauge, good condition throughout.
One Ditto, but fitted with 40ft. Steel Latticed jib, Serial No. 12620.

DERRICK CRANES:
7-ton capacity Anderson-Grice Electric Derrick, new 1954, fitted with 100ft. Steel Lattice jib, in three sections, single-motor type, 380/440-V, 3/50 A.C. Good condition.

7-ton capacity Butters Steam Grabbing Derrick Crane, 100ft. jib, in three sections, cylinders 7in. dia. x 10in. stroke, holding drum 18in. dia. x 33in. wide, grabbing drum 14in. x 33in. Constructed to lift 7 tons at 75ft. radius.
30cw capacity Butters All-steel Hand Derrick Cranes, fitted 45ft. Steel Lattice jib, good condition.

TOWER CRANES:
Choice of five Unus Wild-Fawcett Tower Cranes, 35cw capacity at 13ft. radius, three-motor type, suitable for operation off 400/440-V, 3/50 A.C. Reasonable price.
Further details sent on request.

THOs. W. WARD, LTD.,
ALBION WORKS - - - SHEFFIELD
Telephone 26311—Ext. 225.

or
Brettenham House,
Lancaster Place, Strand, London, W.C.2.
Telephone: Temple Bar 1515

HUBERT C. LEACH, LTD., OFFER EX STOCK:

J.C.B. HYDRAULIC EXCAVATORS:
New J.C.B. 4, price £2,780, with choice of full range of equipments.
J.C.B. 4, demonstration model, new Nov., 1960, £2,225.
J.C.B. Hydra-Digga/Loadall, new Nov., 1959, £1,795.
J.C.B. Hydra-Digga/B/Weight, new March, 1959, £995.
J.C.B. Hydra-Digga/E/Weight, new May, 1959, £875.
ROAD ROLLERS:
4-ton Aveling-Barford, Diesel, £650.
6 1/2-ton Greens, Diesel, £1,200.
10-ton Greens, Diesel, £1,200.
6/8-ton Marshall Tandem, Diesel, £1,550.
HUBERT C. LEACH, LTD., High Street, Cheshunt, Herts. Waltham Cross 25161.

FOR SALE.

Maudslay, with Tasker 10/12-ton Low-load Trailer, 16ft. well, k/o axle, £750.

1948 Priestman Wolf, Skimmer and Backacter, £625.
WILLIAMS, Lower House, Preston-on-Wye, Hereford.

FOR HIRE.—Civil Engineering contractor has 38RB EXCAVATORS for hire; also new 30RB, with Equipments. Reasonable rates for hire for satisfactory period.—R. G. HORTON, LTD., Contractors, Brerley Hill, Staffs. Tel. 77722.

FOR SALE OR HIRE. latest type AIR LOCKS, L.P. COMPRESSORS and MEDICAL LOCK for calcium sinking.—A. E. FARR (PLANT HIRE), LTD., Westbury, Wilts. Tel. 358.

FOR SALE. 1959 Chasidex Loadmaster 700, with p.s.s., 1 cu. yd. Bucket, lighting equipment, driver's cab, etc.—WILLIAM G. SEARCH, LTD., Whitehall Road, Leeds, 12. Tel. 639081 (10 lines).

WANTED. Coles CRANES, 15-ton to 20-ton capacity. JAW BONE WORKS, Wand Lane, Rothwell, Yorks. Telephone: Rothwell 3258.

ROAD ROLLERS

FOR HIRE OR SALE
10 CWT. to 10 TONS
with or without drivers
HALTRAC LIMITED
Bourne Works, Welmar Street, S.W.15
PUTney 4185

SECOND HAND

EXCAVATORS

AT BARGAIN PRICES

FIRST CLASS CONDITION AND FULLY MAINTAINED

J.C.B. Hydra-Digga Excavator, complete with Loadall Forward Loading Shovel, Machine Serial No. 5021. Complete with Cab, electric lighting and starting. With Backacter Bucket. Powered by a Fordson Diesel Engine. Machine new 1959. Our reference 61462. Price net cash as lying Bristol£1,550

J.C.B. Hydra-Digga/Loadall, exactly as above, but Serial No. 5424. Machine new in 1959. Our reference No. 61732. Price net cash as lying Plymouth£1,775

J.C.B. Hydra-Digga/Loadall, exactly as above, but new 1958. Our reference No. 61772. Price net cash as lying Portsmouth£1,300

J.C.B. Hydra-Digga Excavator, complete with Forward Ballast Block, Cab, electric starting and one Backacter Bucket. Machine Serial No. 5036. New in July, 1959. Our reference No. 61472. Price net cash as lying Newport£1,075

J.C.B. Hydra-Digga, with Forward Ballast Block, exactly as above, but Serial No. 4160. New in August, 1957. Our reference No. 61552. Price net cash as lying Bristol£800

J.C.B. Hydra-Digga, with Forward Ballast Block, exactly as above, but Serial No. 4682. New in 1959. Our reference No. 61692. Price net cash as lying Birmingham£1,100

J.C.B. Hydra-Digga Ballast Block Machine, exactly as above. Machine No. 4819. New in 1959. Our reference No. 61712. Price net cash as lying Birmingham£1,125

J.C.B. Mk. I Excavator, complete with Cab, electric starting, Ford Diesel Engine, with front-mounted Holman 2-tool Compressor Unit. Machine Serial No. 2301. Our reference No. 61622. Price net cash as lying Bristol£635

BRISTOL PLANT HIRE LTD

BATH ROAD, BRISTOL 4
Tel: 70321 (6 lines)

MOORE'S WELDING SET
Lincoln 300 amp portable diesel.

Telephone
TOTtenham
0401
(10 lines)



©MCI 68

★Further Classified Plant Advertisements on pages 649-656

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

NEAGRON (CONSTRUCTION), LTD.

OFFER FOR HIRE:
N.C.K. 304 8-ton CRAWLER CRANE, with 70ft. Boom and Fly Jib.

NEALS QM 4/6-ton capacity MOBILE CRANES, Jibs from 24/60ft., heavy duty pneumatics. With Grabs if required.

NEALS 2-ton MOBILE CRANES, mounted on pneumatic tyres or crawler tracks.

NEALS 15cwt. MOBILE CRANES, 20ft. Lattice Jibs.

JONES KLA4 3/4-ton capacity CRAWLER-MOUNTED CRANES, 24ft. Channel to 40ft. Lattice Jibs, with 10ft. Jib.

COLES and LORAIN 5/25-ton capacity LORRY-MOUNTED CRANES.

LIMA 802 30-ton capacity CRAWLER-MOUNTED CRANE, fitted 80/100ft. Jib, with Buck Hitch Gantry.

CONCRETE MIXERS, 5/3 1/2, 7/5, 10/7, 14/10 and 21/14 cu. ft. capacity. Diesel-powered, high or standard discharge, with Integral Weighgear and Hand Scrapers.

DUMPERS, Diesel, 1 1/2 1/2 cu. yd. capacity.

COMPRESSORS, Lorry-mounted and Portable, with full equipments.

ANT QUEEN Diesel MOBILE HOISTS, 7/10cwt. capacity, rail as required.

EXCAVATORS, 10, 19, 24, 33RBs and N.C.K. 304, with all equipments.

40ft. HANGING LEADERS for 19RB and 22RB Excavators, complete with all necessary fittings.

DROTT and ALLIS-CHALMERS HD5G TRACTO-SHOVELS.

CATERPILLAR and BRISTOL TRACTORS, all sizes.

J.C.B. and DINKUM DIGGERS.

ROLLERS, 6 1/2cwt., Vibrating, to 10-ton capacity.

SHUTTERING, SCAFFOLDING, PROPS, ROADFORMS, etc.

MONORAIL and C.P.O.A.C. CONCRETE PLACER EQUIPMENT.

BAR BENDERS and CROPPERS, Diesel and Electric drive.

CHINOOK HEATERS, all models available.

WOODS INDUSTRIAL HEATERS—SOLE HIRING AGENTS.

FURTHER DETAILS:
Abbey House, Victoria Street, London, S.W.1.
Telephone: ABBEY 5152, Sullivan 7626 (10 lines).

FOR SALE.

Bedford 18/12 CONCRETE MIXER, 6ft. raised discharge.

Winget 10/7 CONCRETE MIXER.

Thwaites-Orion DUMPER.

Caterpillar D7 DOZER, Cable-operated Blade.

2,000ft. 8in. STEEL SCREDS, with pins.

Five MOBILE SITE OFFICES, easily convertible into caravans.

Thames Trader 7-ton TIPPER.

19RB SKIMMER BUCKET.

TRAILER ROAD SCRAPER.

Further details on application.

BEATON CONSTRUCTION, LTD., Mill Hill 1201.

FOR SALE.

Ross 15,000lb. FORKLIFT TRUCK.

Model 19HT, height of lift 10ft. 6in., pneumatic tyres, enclosed cab, Clarke 4-cyl. petrol engine, in very good working order. £1,150.—R.D. AND M. ENGINEERING CO., Sandy Lane, Dukinfield, Ches. ASHTON-under-Lyne 2871/2.

STEEL SHEET PILES FOR SALE.

30 Larssen 1GB, lengths 12ft./20ft.

32 Larssen 2, lengths 10ft./12ft.

60 Larssen 2, lengths 15ft./20ft.

60 Larssen 2, lengths 25ft./27ft.

350 Larssen 2, lengths 25ft./27ft.

300 Larssen 2, lengths 27ft./34ft.

250 Larssen 3, lengths 30ft./40ft. (unused).

150 Larssen 4B, lengths 45ft./50ft.

350 Frodingham 1A, lengths 7ft./10ft.

150 Frodingham 1A, lengths 15ft./20ft.

30 Frodingham 1B, lengths 12ft./14ft.

40 Frodingham 2, lengths 20ft./22ft.

65 Frodingham 2, lengths 25ft./32ft. Unused.

60 Frodingham 3, lengths 25ft.

25 Frodingham 4, lengths 37ft./40ft.

Also various Larssen and Frodingham CORNER BOX and JUNCTION PILES.

DUDLEY VALE, LTD.,

9 Palace Street, London, S.W.1. Tel.: VICTORIA 0252.

PLANT FOR SALE.

Two 2-tool MOBILE COMPRESSORS, Atlas-Copco NTSV, with Dorman 48K11 Engines (electric starting), mounted on Bedford short-wheelbase chassis.

Priestman Tiger Mk. V EXCAVATOR, No. A7449, purchased new in March, 1955, fitted with Dorman 41A Diesel Engine, with 24in. tracks, 40ft. Dragline Equipment. Fully reconditioned.

One Dorman 4DS CYLINDER HEAD.

Several Parker 5/3 1/2 CONCRETE MIXERS.

SKIMMER BUCKET for Tiger Mk. V Excavator.

Priestman Cub Mk. V EXCAVATOR, No. A8924, purchased new April, 1955, fitted with Dorman 2LB Engine, with 18in. tracks, Backacter Equipment, 2ft. Bucket.

WILSON PLANT HIRE, LTD.,

Weedon Road, Northampton.

Telephone: Northampton 4653 and 4654.

SURPLUS CONVEYOR BELTS.

New, unused and Second-hand. Most widths up to 36in. in stock for immediate delivery. Second-hand Belts supplied on sale or return basis.

G. E. SIMM (MACHINERY), LTD.,

Sheffield: 27 Broomgrove Road (Tel.: 64436).

Glasgow Area: Luggie Bank Road, Kirkintilloch (Tel.: 2468).

London: 33 St. George's Drive (Tate 8722).

South Wales: 17.5 Kingsway Trading Estate, Bridgend (Tel.: 1567).

WORKING IN HEREFORDSHIRE.

HIRE YOUR PLANT from

THE CLEE HILL TRANSPORT AND ROLLING

Clee Hill, Ludlow, Tel.: Cleehillstone 284.

Road Rollers, Vibrators, Compressors, Mixers, Dumpers, Pumps, Tractors, Tipper, Excavators.

FOR SALE.—A number of Ransomes-Rapier

Tilting Drum AGITATORS, mounted on 7-ton Thames Traders, at prices ranging from £1,500 to £1,500 complete.—For further details, write to Box A.A.384. "The Contract Journal".

FOR HIRE, TRAXCAVATOR 955, with Side Tip and power shift.

WILLIAMS,

Lower House, Preston-on-Wye, Hereford.

HUBERT C. LEACH LTD.

OFFER—EX STOCK

KELVIN ROAD FORMS

FOR SALE OR FOR HIRE

Write for Details:

HUBERT C. LEACH LIMITED

HIGH STREET, CHESHUNT

Telephone: WALTHAM CROSS 25161

EQUIPMENT SALES & HIRE, CO. LTD.

FOR HIRE TRAXCAVATORS 955

FITTED SIDE TIP & RIPPER

CAT. D.7's Dozer or Scraper

19 R.B.'s—Any Equipment

HOUNSLOW 8831

SULLIVAN PLANT HIRE CO., LTD., OFFER FOR SALE.

Caterpillar U2, SU and SJ Series, fitted Hydraulic

Angledozer.

Caterpillar D4, 2T, 7J and 6U Series, fitted Hydraulic

Angledozer and P.C.U.s.

Caterpillar D6, 4R and 9U Series, with Dozers and P.C.U.s.

Caterpillar D7, 3T, 4T, 7M and 17A Series, with Dozers and P.C.U.s.

Caterpillar D8, 6R, 2U, 13A, 14A and 22A Series, fitted Dozers and P.C.U.s.

Caterpillar D9, 18A and 19A Series, fitted Dozers and P.C.U.s.

Caterpillar 955E TRAXCAVATOR, Series 12A.

Le Tourneau Model LP 12/13 cu. yd. SCRAPERS.

Le Tourneau Model LS 9 cu. yd. SCRAPERS.

Le Tourneau Super O TOURNAPI SCRAPERS.

Several Onions 12 and 9 cu. yd. SCRAPERS.

Allis-Chalmers HD5G TRACTO-SHOVELS, Series 4000 11000.

Allis-Chalmers HD20 and HD21 TRACTORS, with Dozers and Winches.

Michigan 175A and 125A Tractor SHOVELS.

10RB EXCAVATORS, 20000 Series, fitted Skimmer Backacter.

19RB EXCAVATOR, 14000 Series, fitted Skimmer Backacter.

Several 22RB EXCAVATORS, choice of equipment.

33RB, 9000 Series, fitted Dragline and Face Shovel.

37RB, 9000 Series, fitted Dragline.

44RB, 19000 Series, fitted Face Shovel.

Benford 18/12 Reversible Drum Diesel CONCRETE MIXER.

Winget EM21 21/14 Raised Discharge CONCRETE MIXER.

Broomwade Rotary WR120 COMPRESSOR.

C.P.T. 500 c.f.m. COMPRESSOR.

Greens 8cwt. Vibrating ROLLER, new 1955.

1960 J.C.B. 4, in excellent condition.

1960 J.C.B. HYDRA-DIGGA/LOADALL 65, very good condition.

Also WINCHES, EQUIPMENTS, etc., for disposal.

SULLIVAN PLANT HIRE CO., LTD.,

4 Denison Road, Feltham, Middlesex.

Tel.: FELTHAM 4730, 2664, 7722.

CONTRACTORS' PLANT FOR SALE.

One Austin Western 99H GRADER, four-wheel drive, hydraulic, powered by International

fitted cab and in fair condition. Little cost.

Large quantity of new Spares. £1,500.

One 12-ton Aveling-Barford ROAD ROLLER, fitted 4-cyl. Diesel Engine, broken crank. Cheap to clear. £200.

One Six-wheeled BREN GUN CARRIER TRAILER, fitted Thompson Winch, suitable for Drott. £175.

Photographs on application.

BROOKLYN ENGINEERING,

187 Hursley Road, Chislehurst, East. Kent.

Chislehurst Ford 2281.

WANTED: Parker LOADSCREENS, 24/30in. dia.

40/50ft. centres, or similar portable mobile grading gravel, incomplete considered.—Particular prices: McCLUSKEY, Wallace Street, Ayr 64596.

REQUIRED, STARTING ENGINE for D4 Caterpillar

State serial number, condition and price.

Write Box P.5239, "The Contract Journal".

SLOGGETTS PLANT HIRE

COMPRESSORS OF ALL TYPES

2 Burtons Road, Hampton Hill, Middx.

Telephone: Teddington Lock 1138/9

Lyons

MODERN CONTRACTORS' PLANT

Now available for SHORT- or LONG-TERM

HIRE. Also Non-Mechanical Plant. All

Inquiries promptly attended to.

PLANT FOR SALE—SURPLUS TO OUR

REQUIREMENTS:

Several DRAYTON 15cwt. DUMPERS.

Several 10/7, 7/5, 5/3 1/2 MIXERS.

10RBs and 19RBs, with any equipment.

ROAD ROLLERS, 2 1/2/5-ton and 6/8-ton.

One 58-kVA GENERATING SET.

Several SITE CABINS and CARAVANS.

Diesel RIVER TUGS.

ONIONS DOUBLE DRUM WINCH.

Several D8 TRACTORS and SCRAPERS.

RONALD LYON (PLANT HIRE) LTD.,

Laundry Road, Fulham, London, W.6.

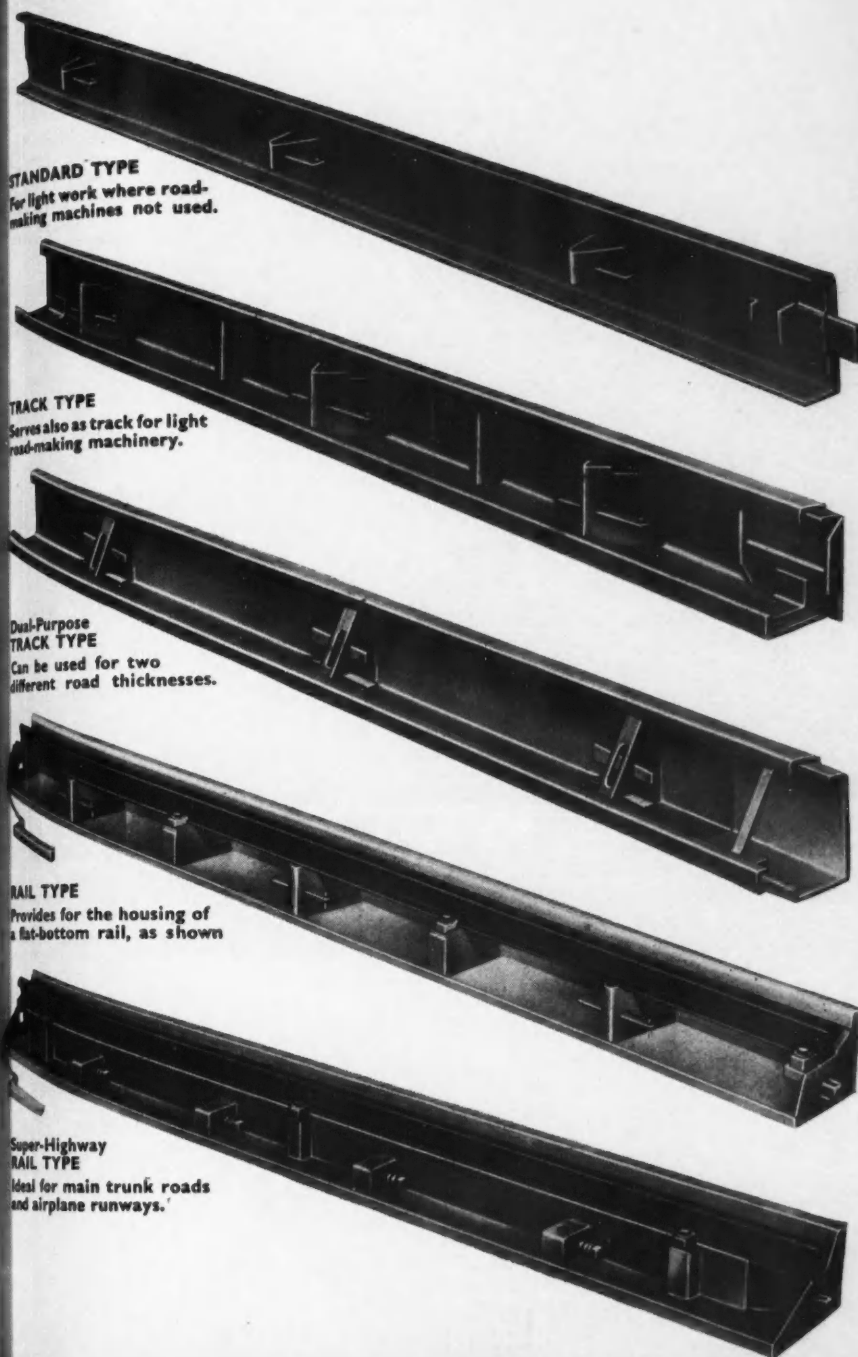
Telephone: Fulham 7868 and 7869.

**VOGELE Concrete Spreaders
& Finishers for modern roads**

Telephone: ELGar 6777 (4 lines)

CET

EQUIPMENT LIMITED



STEEL ROAD FORMS

* Completely comprehensive range of types and sizes

* Top quality manufacture ensuring extra long life

* Right prices

—that's why
so many
contractors
use

ACROW



MARGINAL HAUNCH FORM
used in construction of the
London-Yorkshire Motorway
Civil Engineering Contractors:
John Laing and Son Limited
Consulting Engineers:
Sir Owen Williams and Partners

Acrow (Engineers) Ltd., South Wharf, London, W.2. Tel: AMBassador 3456 (20 lines)

Belfast Area: Phone 665282; Birmingham Area: Phone Walsall 26085; Bristol Area: Phone Bristol 655244; E. Counties Area: Phone Seffron Walden 2552
Glasgow Area: Phone Bridgeton 1041; Leeds Area: Phone Leeds 76514; Liverpool Area: Phone Aintree 7335; Manchester Area: Phone Stockport 7501/2
Newcastle Area: Phone Newcastle 86-9493; Southampton Area: Phone Locks Heath 3021; S. Wales Area: Phone Penarth 57388



For rock-hard work — get a





Faceshovel



$\frac{3}{4}$ yd. to 3 yd. capacities

The facts speak for themselves. No other range gives you the stamina, the brute stop-at-nothing strength of NCK-Rapier faceshovels. Yet running costs and down time are at a new low level. Face these facts—get your next faceshovel from the NCK-Rapier range.

Get NCK-Rapier—and get on with the job

144	$\frac{1}{4}$ cu. yd.
205	$\frac{1}{2}$ cu. yd.
304	$\frac{3}{4}$ cu. yd.
405	1 cu. yd.
605	1 $\frac{1}{2}$ cu. yd.
940	2 $\frac{1}{2}$ cu. yd.
1205	3 cu. yd.

NCK-RAPIER LIMITED, 32 VICTORIA STREET, LONDON S.W.1

Telephone: Abbey 6738/9 Cables: Excasales, London

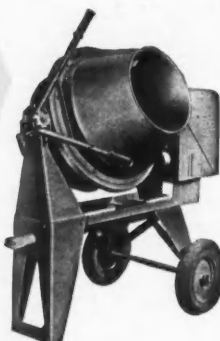
A Newton Chambers Company

WARDS

SUPPLY EVERYTHING for the BUILDER & CONTRACTOR



A full range of concrete mixers is available from 3/2 capacity, diesel or electric motor. Illustrated is the latest 4/3 side discharge type.



Hemel-Ward Rover Hoist-tower, easily transported, quickly erected. Hoists 10 cwt., 100 ft. per min. Write for illustrated literature.



Smith Excavators (Manufactured by Thomas Smith & Sons (Rodley) Ltd.): 8, 10, 12 and 21 cu. ft. capacities. Full specifications available on request.



**COMPRESSORS and CONVEYORS • CRANES • DUMPERS • HOISTS
LOADING SHOVELS • LOCOMOTIVES • PUMPS • ROAD ROLLERS
SCRAPERS • TRACTORS and TRACTOR SHOVELS • TRENCHERS, ETC.**

Catalogues available: 'LIFTING TACKLE STOCK LIST', 'T.W.W. PLANT LIST', 'ALBION MACHINERY CATALOGUE', 'CONTRACTORS TOOLS and EQUIPMENT CATALOGUE'. Ask to be put on the Mailing List.

THOS. W. WARD LTD

ALBION WORKS • SHEFFIELD

*Phone: 26311 (22 lines) *Grams: Forward Sheffield

London Office: Brompton House, Lancaster Place, Strand W.C.2

*Phone: TEM 1515

Works at

GRAYS (Essex) Phone: Grays Thurrock 4764 and 4806

GLASGOW Phone: Scotstoun 6355/7

BRITON PERRY Phone: 3166

COVENTRY Phone: Bodworth 3441/2

A service you can rely on

**planned to protect your investment
in Caterpillar Earthmoving Equipment**



WHAT CATERPILLAR DEALER SERVICE MEANS TO YOU IN 1961

- A fleet of sixteen service vehicles staffed by factory trained service engineers.
- A complete track rebuilding service with free collection and delivery.
- A comprehensive service inspection scheme reducing your down time to a minimum.
- Two Heenan & Froude dynamometer engine test beds.
- Fuel injection equipment repair service.
- Cat Care Schools to train operators in the efficient care and maintenance of machines.
- Plus a round the clock emergency breakdown service.

These are but a few of the comprehensive service facilities available from our conveniently located depots at Glasgow & Perth

Contact your nearest CALEDONIAN Service Depot NOW for full particulars of the FULL range of our service facilities.

Caledonian service engineer carries out 1,000 hour free service check on British-built Caterpillar D5H Tractor.



Your CATERPILLAR DEALER in Scotland

GLASGOW Rigby Street, E.1. Tel: BRidgeton 5221/5

PERTH Lairwell, Kinfauns. Tel: Perth 3916

CALEDONIAN

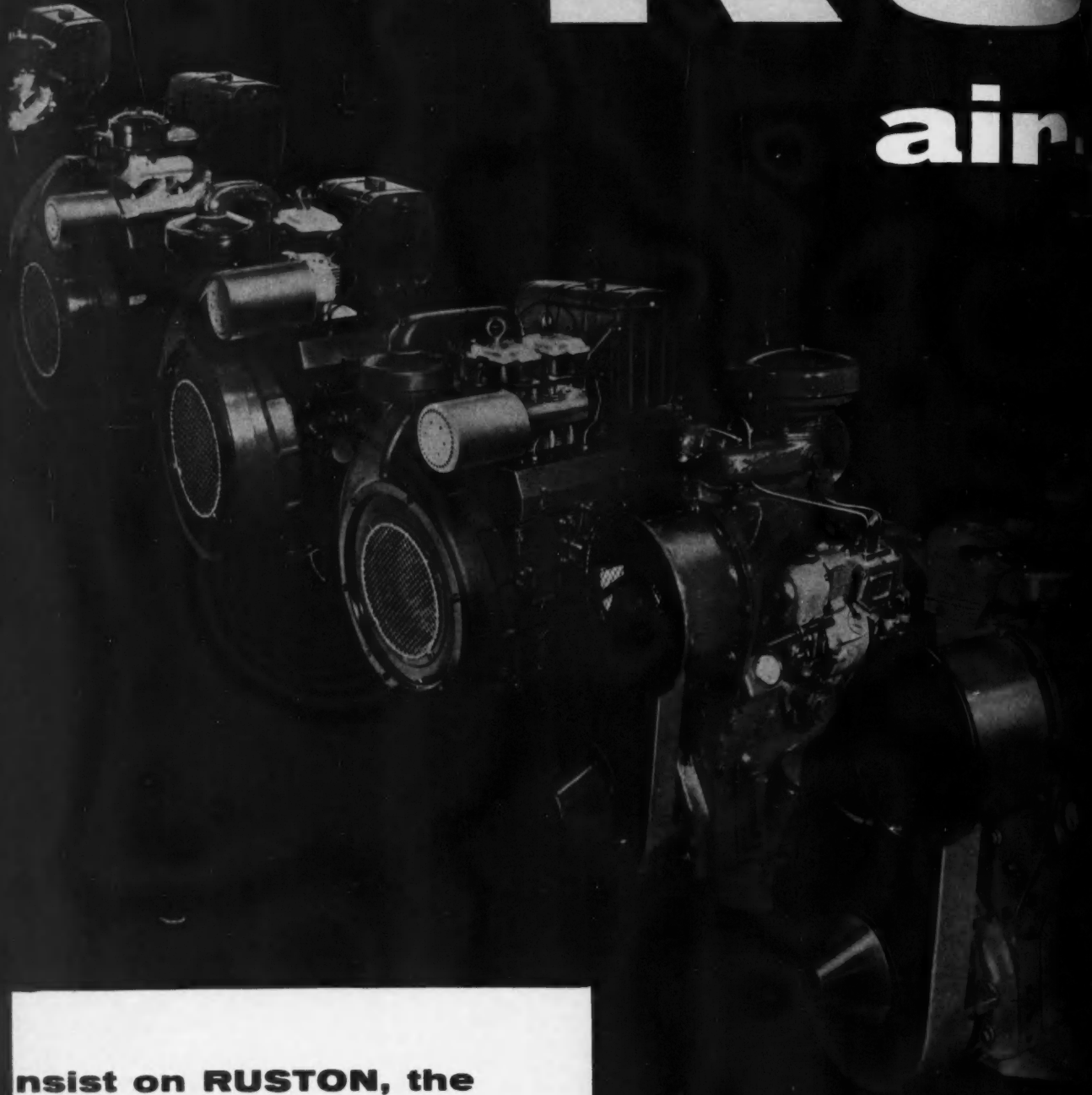
CALEDONIAN TRACTOR & EQUIPMENT CO. LTD. Head Office: 1, Rigby Street, Glasgow, E.1. Tel: BRidgeton 5221 5

SS/FP/2

Caterpillar and Cat are Registered Trademarks of Caterpillar Tractor Co.

RUSTON

air-cooled diesel engines



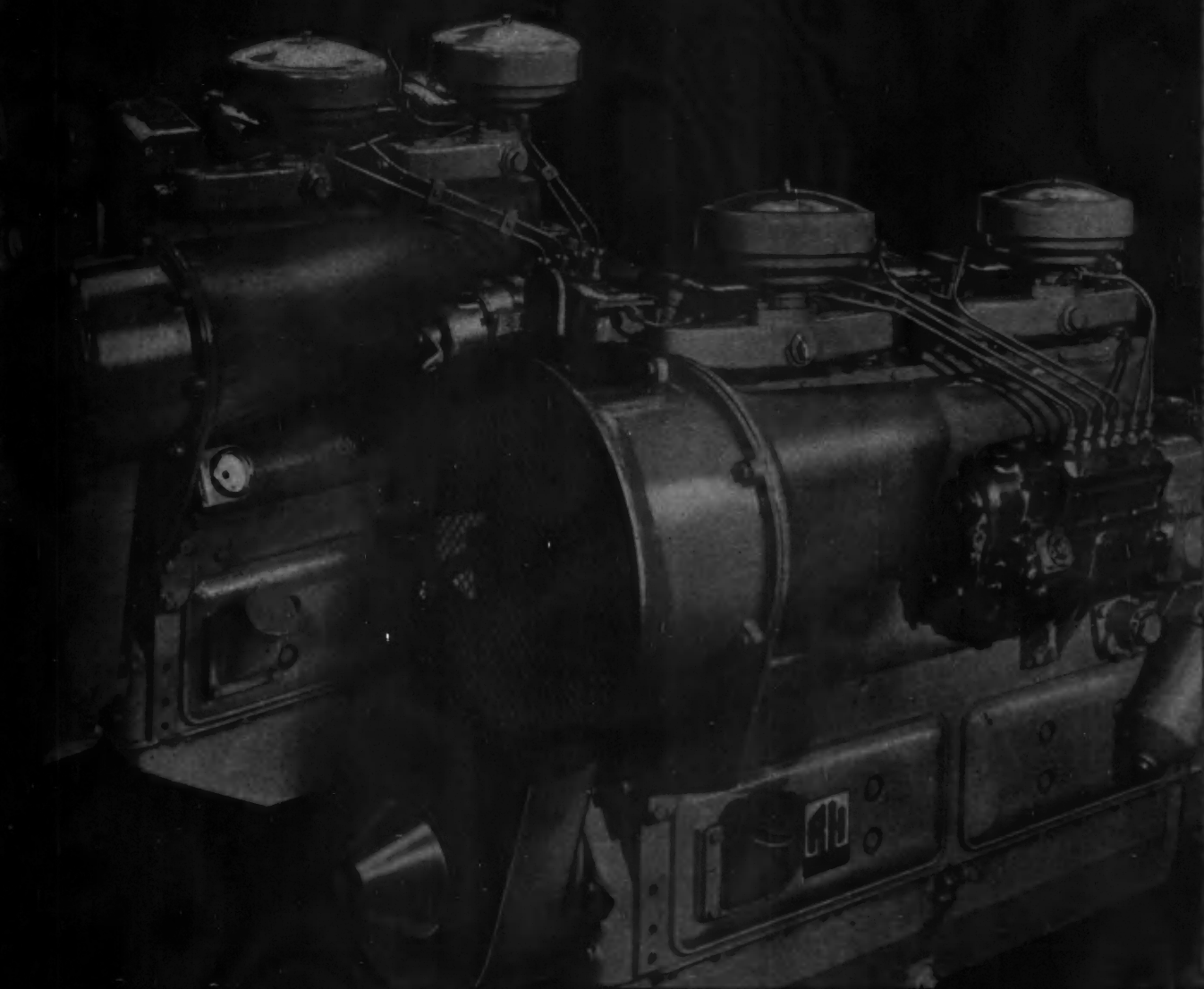
**Insist on RUSTON, the
world's most dependable
air-cooled diesel,
for all your plant**

RUSTON & HORNSBY LTD., LINCOLN *Associated*

STON

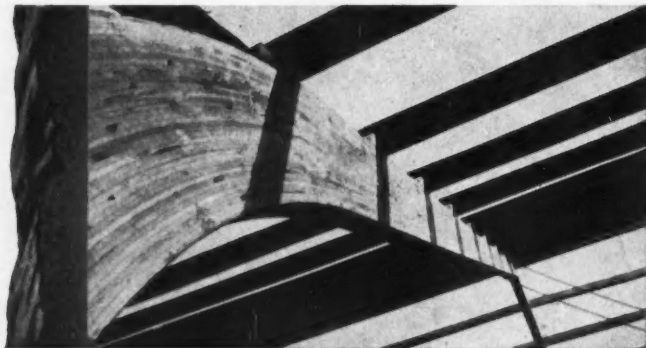
cooled diesels

4-110 b.h.p.



**Douglas Fir**

Often reaching a height of over 300 ft., this is the tallest giant in the forests of British Columbia. Felled and stripped, the tree yields a timber of light weight and even grain which is stronger pound for pound than steel or concrete. Hence its considerable variety of uses—for heavy structural work, heavy duty casemaking, shipbuilding and bridging, indeed virtually every application where a hardy wood of excellent wearing and weathering properties is needed. For further information: The Commercial Secretary (Timber), Office of the High Commissioner for Canada, No 1 Grosvenor Square, London W1, or The Canadian Trade Commissioner (Timber), 144 West George Street, Glasgow, C2.



Douglas Fir beams provide the largest laminated arches in the U.K.

COX plant hire

Telephone:

RODNEY 2215

COX OF CAMBERWELL

H. COX & SONS (PLANT HIRE) LIMITED
33 Southampton Way, Camberwell, London, S E 5

**The hire service that
never lets you down**



PEARSON TOWER CRANES

Pearson Machine Tool Co. Ltd. are now producing entirely British built luffing type, rail mounted, travelling Tower Cranes. The REX as shown above is now available from stock. Price includes first erection, and Pearson's well-established reputation for service will be at the disposal of users.

The specification of these outstanding cranes is in full compliance with BSS 2799.

MODEL	RADIUS (ft)		CAPACITY(cwt)		MAX. LIFT (ft)
	Max.	Min.	Max.	Min.	
PERKY	43	20	25	13	80
TITAN	52	20	33	17	100
REX	77	28	49	21	140
GIANT	89	34	59	27	170
MAMMOTH	98	38	58	32	200

British Built under licence from EWK, WEST GERMANY

PEARSON MACHINE TOOL CO. LTD.

CRANE DIVISION

WALKER, NEWCASTLE UPON TYNE, 6.

Telephone: Wallsend 625101 (6 lines)

GREENHAM EQUIPMENTS LIMITED

USED CONTRACTORS PLANT FOR SALE

HOISTS

Wickham 10cwt. Static, Ruston 2VTH diesel engine. Repaired and repainted	£145
A.C.E. 20cwt. Skymaster Passenger Hoist, new 1957, 400-440/3/50 motor and control box. Complete with safety gear gates, mesh guards and 468ft. mast. Very good condition	£1,750
B.H.C. 15/20cwt. centre slung. Excellent condition, with reconditioned Petter AVA2 diesel engine	£235

MONO RAIL

A large selection of Power Wagons, Trailers, Straight and Curved Rails, Stands, Points, etc. All in excellent condition, having been checked over, repaired where necessary and repainted. Average price less than 50% of new prices. Prices on application.

PUMPS

Large selection of Petrol and Diesel Pumps from 2in. to 6in.	Prices from £20
--	-----------------

TRACTORS AND SHOVELS

Bristol 25 Angledozer, new 1957, Perkins P3 Diesel. Good condition	£525
Fowler VF Angledozer, Diesel, Bray Equipment. Good working order	£225
Bristol Duplex Overloader, April, 1960, Perkins P3 Diesel. Many repairs recently. Repainted	£1,000
International BTD6 Angledozer, new 1957. Very good machine. Repaired where necessary and repainted	£1,425
International BTD20 Dozer, new 1959. Works reconditioned	£4,950
Chaseside 700 Loading Shovel, new 1957. Ford Diesel. Excellent order. Repainted	£925
J.C.B. Hydra-Digga, with Loadall Front End Equipment, new 1959, c/w 24in. Digging Bucket and Ditching Bucket. Excellent condition throughout	£1,650
Sherman Trencher, mounted Bray HL23 Loading Shovel, and complete with 12in./18in. and 24in. Digging Buckets. Demonstration machine	£1,900

EXCAVATORS

Priestman Wolf $\frac{3}{4}$ cu. yd. Excavator, new 1951, Dorman Diesel Engine, Skimmer / Backacter Equipment	£950
Ruston 3W Excavator, 10800 Series, Ruston Diesel Engine, 90ft. Dragline Jib and 3yd. Bucket. Lying Scotland	£4,750
Lima 2400 Excavator, new Dec., 1954, Caterpillar Diesel Engine, 120ft. Dragline Jib. Lying Scotland	£20,000
Lima 2400 Excavator Spares. Large quantity. Lying London	
Quantity of Ruston 19RB Spares. List on application.	

BATCHING PLANT

P11 Portasil, 1960, 11 tons capacity, with pullway. New body. Repainted	£350
10-ton Portasil. Excellent condition, having been repaired and repainted	£275
30-ton Portasil, complete with pullway. Excellent condition	£395

CLAYTON ROAD, RUISLIP ROAD, GREENFORD, MIDDLESEX

Let's ring VIKING 3651



For Surveying Equipment

contact *

CHADBURNS

Permanent display of levels and theodolites and surveying instruments by all leading British and Continental manufacturers in extensive Optical Showrooms.

Chadburns are appointed Area Stockists for
ZEISS - Western Germany
KERN - Switzerland
STANLEY - London

and North of England agents for:
SURVEY & GENERAL INSTRUMENT
CO. LTD · LONDON W.C.1

LEVEL AND THEODOLITE REPAIRS A SPECIALITY



CHADBURNS (LIVERPOOL) LTD
31 Brunswick Street, Liverpool, 2.
Tel: CENTRAL 4844

SPENCER

MESH

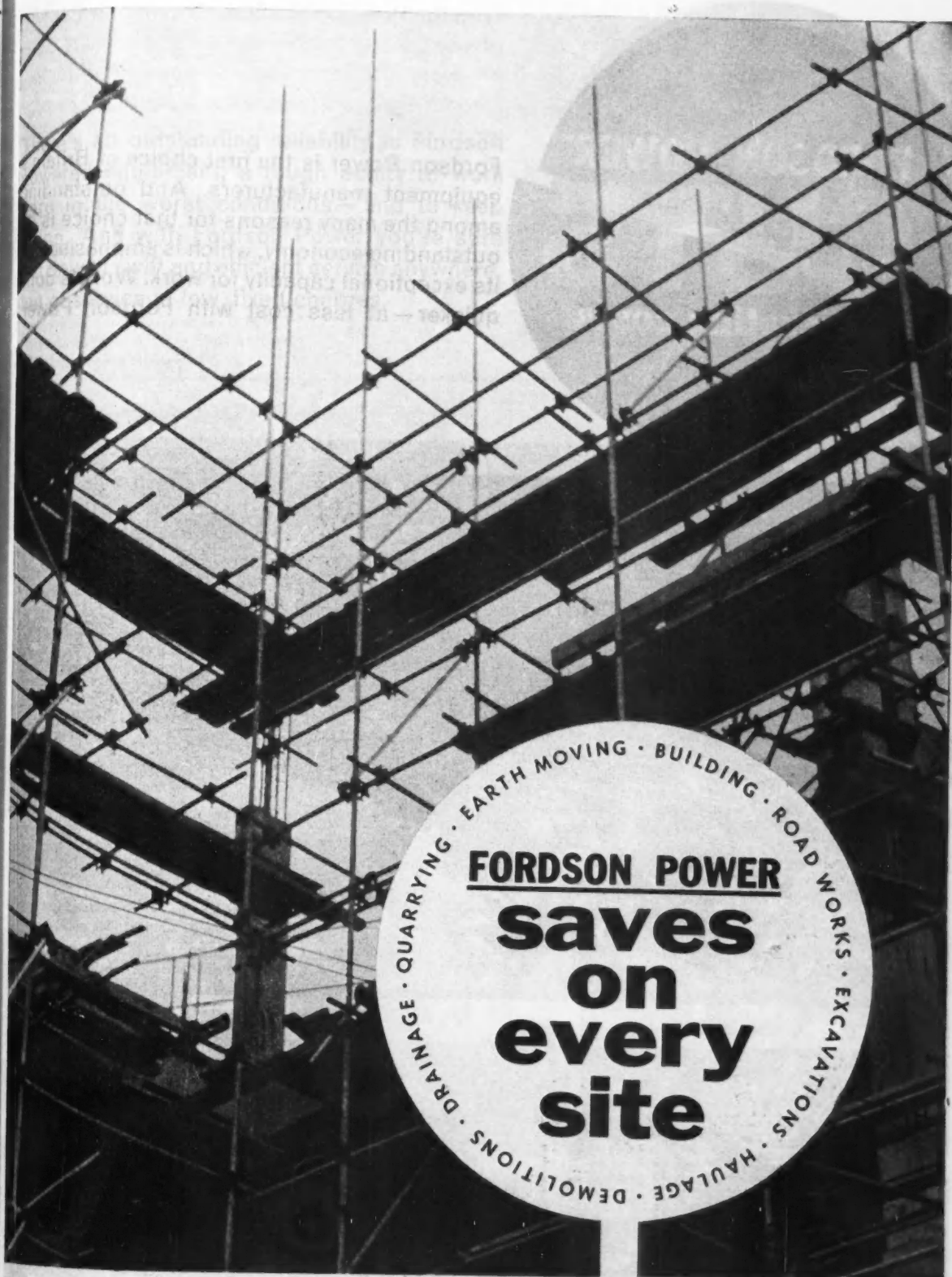
An electrically welded mesh manufactured in accordance with B.S.S. 1221/1945 Part 'A' from High Tensile Steel Wire drawn in our own mill. Oblong or square meshes for concrete reinforcements in floors, foundations, roofs, roads, etc. Standard size sheets and rolls always in stock. Spencer Mesh can also be supplied galvanized. Small meshes are ideal for partitions, fencing, screens, guards and many other applications. Available, if required, in small panels cut to your own specifications.

Supplied in Sheets and Rolls

SPENCER WIRE · WAKEFIELD

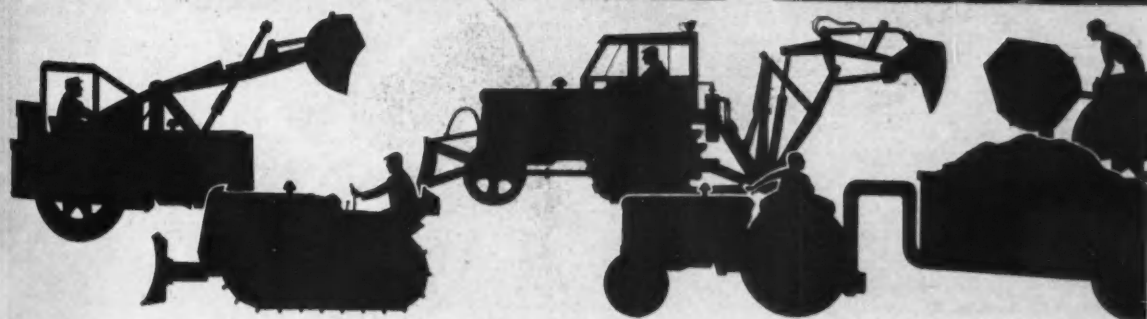
Telephone: Wakefield 6111

Telegrams: SPENCER WAKEFIELD TELEX. Telex No. 55,160



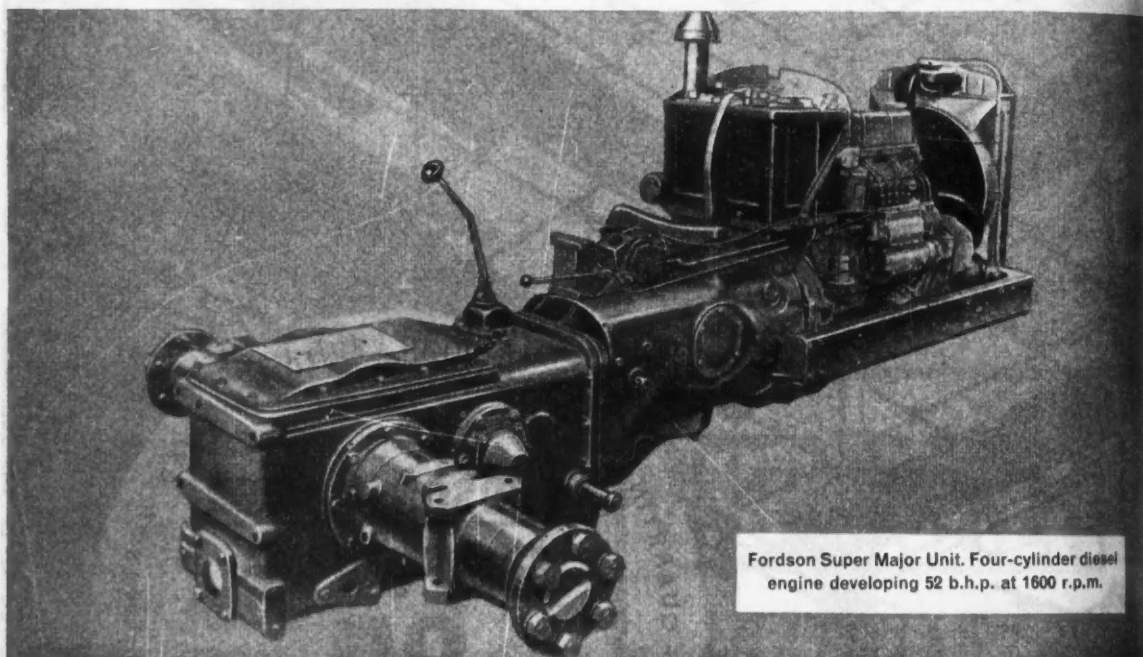
DRAINAGE • QUARRYING • EARTH MOVING • BUILDING • ROAD WORKS • EXCAVATIONS • HAULAGE • DEMOLITIONS

FORDSON POWER
saves
on
every
site

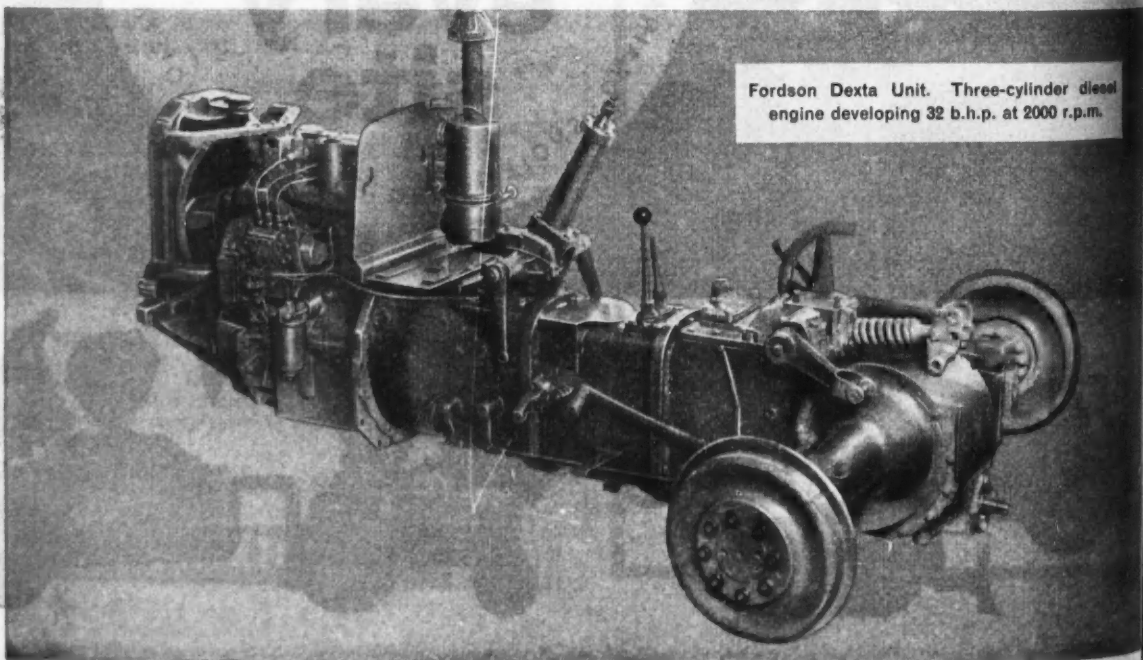


FORDSON POWER ~~CUTS~~ operating costs

Fordson Power is the first choice of Britain's equipment manufacturers. And outstanding among the many reasons for that choice is its outstanding economy, which is emphasised by its exceptional capacity for work. Work is done quicker—at less cost with Fordson Power.



Fordson Super Major Unit. Four-cylinder diesel engine developing 52 b.h.p. at 1600 r.p.m.



Fordson Dexta Unit. Three-cylinder diesel engine developing 32 b.h.p. at 2000 r.p.m.

Fordson Power is available in an infinite variety of specialized forms. There is a Fordson for every site for a Fordson industrial tractor. There's more available than you think.

There's an outstanding reliability in Fordson powered equipment, a tough ability to work hard in the worst conditions—and to keep going. And with Fordson Power you're sure not only of swift and efficient service anywhere, but of service at low, fixed charges.



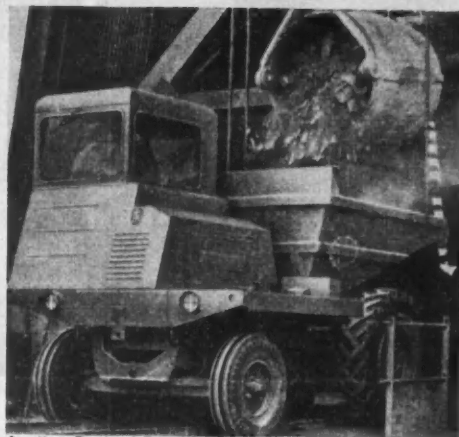
Four-wheel drive Bray Loader



Muir Hill Dumper



Weatherill Shovel



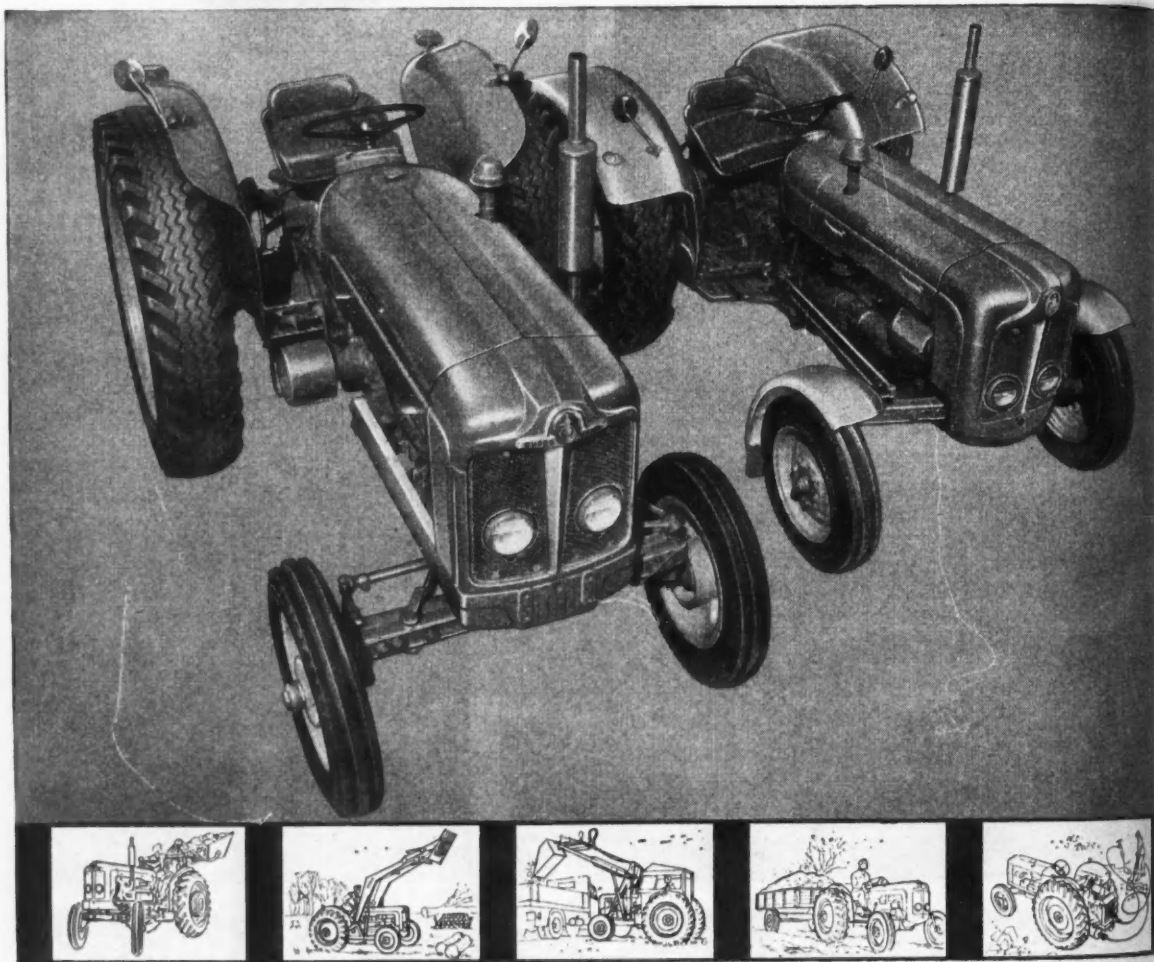
Aveling Barford Dumper



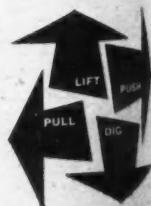
J.C.B.4 Excavator/Shovel

FORDSON POWER**CUTS****idle time**

Fordson Power is available in an infinite variety of specialised forms, but there's a place, too, on every site for a Fordson industrial tractor. There's no more versatile piece of plant, nor a more hardworking unit. Take full advantage of the many attachments available and your Fordson tractor (52 bhp Fordson Super Major or 32 bhp Fordson Dexta) will have a utilisation factor nothing else will equal. Right round the clock it will speed the job, and save plant and running costs in doing it.

**FORDSON**

INDUSTRIAL SALES DEPARTMENT



TRACTOR GROUP FORD MOTOR COMPANY LIMITED DAGENHAM ESSEX



ROLLOVER SKIPS

Solid forged handle and eye, Gusseted corners, Extra thick back plate, All welded—high grade steel fabrication, Quick action single shutter.

Test Certificate supplied with each handle.

**The finest on the market today—
and the
keenest prices in the field**

All Plant Fully Guaranteed to meet our Specification.

Full details from the actual manufacturers: **AUDAX**
CENTRAL AVENUE, WEST MOLESEY, SURREY
Telephone: Molesey 6071 (8 lines)



Universal Double-Locking AIR HOSE COUPLINGS

Lowest prices - highest quality!

DESCRIPTION	SIZE AVAILABLE			
37E Tail Piece	8"	6"	4"	1"
40E Male Thread	8"	6"	4"	1"
41E Female Thread	8"	6"	4"	1"

SOLE DISTRIBUTORS:

**BROWN & TAWSE
PLANT LTD.**

AMBROSE ST., MANCHESTER 12
Telephone: EAS 2231 (5 lines)

Please write for illustrated leaflet and quotations.



GASKET



41E

40E

HAVE YOU A BORING JOB...?

Then ring WALTHAM CROSS 26211/6 to hire

CHESHIRE HIGHWAY EARTH BORING MACHINES

fitted 9", 12", 14", 16", 24" Augers
Maximum depth 20'

READY TO TRAVEL ANYWHERE

ACWORTH (PLANT HIRE) LTD.



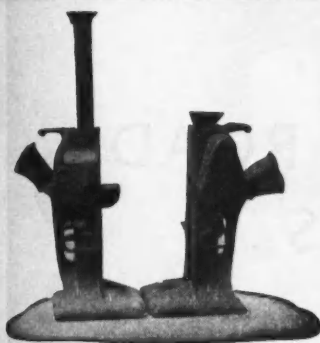
"ARCO"

**Donkey Jackets
Duffle Coats
P.V.C. Clothing
Boots, etc.**

Catalogue and samples
on request

THE ASBESTOS & RUBBER CO. LTD.
WAVERLEY STREET, HULL

Telephone 27678 (6 lines)



**12 TON RATCHET
JACKS
HEAD and TOE
LIFT
COMPLETE WITH
HANDLES
BRAND
NEW
£12 each**

L. W. VASS LIMITED
AMPTHILL, BEDFORD. Tel: AMPTHILL 3255-6



THE **Alborough** SERVICES SAVE YOU TIME AND MONEY!

The Alborough nationwide reputation has been built on Service (not only supply) ... Service which saves our customers time and money in planning and erection.

Free illustrated literature available from ...

A.B.C.D. (Raynes Park) LTD., 34/35 Alpha Road, Surbiton, Surrey

Tel: ELMbridge 6591/3

Consider the savings you can make, for example, on an Alborough Prefabricated Concrete Garage or Coal Bunker. Both combine compactness, strength and durability with neat unobtrusive appearance. And both, like all Alborough Prefabricated Concrete outbuildings, ask for the lowest cost for the most and the longest service. Complete Erection Service within 75 miles of London and 15 miles Birmingham

FOR IMMEDIATE HIRE

CRAWLER CRANES UP TO 50 TON CAPACITY 802 & 1201 LIMAS

43 RB's
38 RB's
33 RB's
22 RB's
19 RB's
10 RB's

Lorry mounted cranes

D4, D8 TRACTORS
EUCLID REAR DUMPS
GALION GRADERS
DERRICKS, 5, 7, 10, 20 ton
PILING EQUIPMENT
CRUSHING PLANT
NEALS CRANES 4/6 ton

933 & 955 SIDE TIP
977 & DROTT SHOVELS
CHASESIDE & MICHIGANS
DINKUM DIGGERS
3yd. DUMPERS
16/60 TRENCHERS
COMPRESSORS

Also all other Civil Engineering Plant available

ROADS & RUNWAYS (Plant Hire) LIMITED

26 VICTORIA STREET, LONDON, S.W.1.

Telephone: **ABBEY 4905**

SURVEYING EQUIPMENT

WE HIRE SELL and REPAIR

Theodolites,
Levels, Staves,
Ranging Rods,
Chains and
Arrows, Steel
Tapes, etc.

Modern instruments
bought or taken
in part exchange.



Clarkson's

ESTABLISHED OVER 150 YEARS



DEPT. Cj, 338 HIGH HOLBORN, LONDON, W.C.1
(Opposite Gray's Inn Road) Phone: HOLborn 2149

OFFERS

OFFERS are invited for the WHOLE, PORTIONS, or ITEMS of PLANT listed below. This plant must be cleared as quickly as possible.

One 10RB EXCAVATOR, with Backacter Equipment, 16000 Series.
One 10RB EXCAVATOR, with Dragline, 14000 Series.
One BACKACTER EQUIPMENT for 10RB.
One SKIMMING EQUIPMENT.
One 14/10 WINGET MIXER, with Weighbatcher and Power Shovel, Diesel.
One 5/34 MIXER, Petrol.
Two 10/7 WINGET MIXERS, Diesel.
One AIR COMPRESSOR, compressor equipment includes Heavy and Light Breakers, Tools, Hose, etc.
One BLAW KNOX SUPERSILO, 15 tons.
6,000 lin. ft. SCAFFOLD TUBE.
200 COUPLINGS.
One CIRCULAR SAW, Petrol.
Two 15cwt. DUMPERS, Serial Nos. 211847 and 207619.
One PELAPONE POWER RAMMER.
One JOHNSONS POKER VIBRATOR.
One BENDING MACHINE, M.S. Bars.
One CROPPING MACHINE.
One GENERATOR for traffic lights.
One Set TRAFFIC LIGHTS, including Batteries.
300 12ft. STEEL TRENCH SHEETS.
200 8ft. STEEL TRENCH SHEETS.
400 STEEL TRENCH STRUTS.
One 4in. D/D WICKHAM SUCTION PUMP, Hoses.
Two 3in. S/D WICKHAM SUCTION PUMPS, Hoses.
One 30cwt. WINCH and SHEARLEGS.
One 6in. POWER SANDING DISC.
One 30 x 15 TIMBER STORE SHED.
One 20 x 10 TIMBER STORE SHED.
One 20 x 10 OFFICE.
40 ACROW PROPS, extending to 10ft.
SHUTTERING.
SITE OFFICE FURNITURE.

BURROWS BROTHERS (Contractors) LTD.

WOLSLEY HOUSE,
108 SALTERGATE, CHESTERFIELD.
Telephone: Chesterfield 7130

DO YOU— CUT TRENCHES IN THE ROAD COMPACT IN TRENCHES BREAK CONCRETE

?

— If so, we can certainly reduce your
present costs by providing (sale or hire)
an

ARROW MOBILE HYDRAULIC HAMMER

—please write or 'phone **LEMAND MACHINERY LTD.**
ROWSLEY, MATLOCK, DERBYSHIRE—Darley Dale 3391

110° TURN - ability

Shawnee Poole

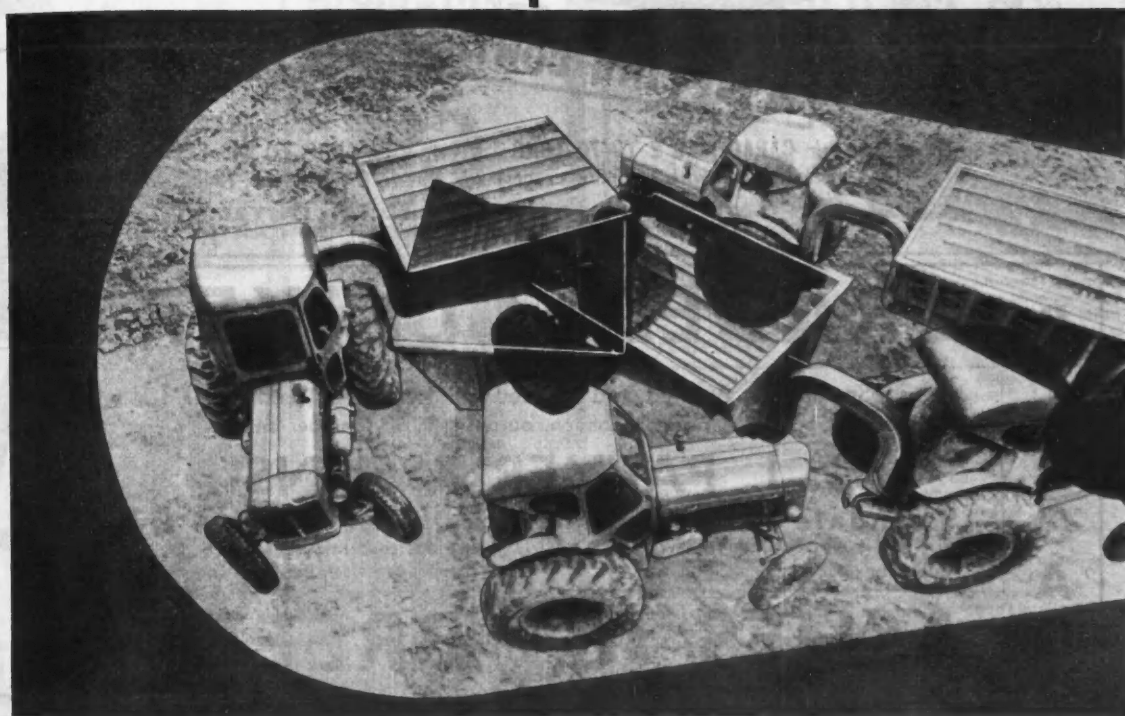
**World's shortest
turning circle
cuts cycle time...**

From a study of this multi-exposure illustration, you see how the Shawnee Poole makes a 'U' turn in 23' 6".

... ability to make a 'U' turn in approximately 23 ft. enables users of the Shawnee Poole System to increase production and eliminate expensive site preparation—with the System that saves up to 50% in total operating costs.

Ask for a Job Survey on your site.

The Shawnee Poole System is manufactured under British and Foreign patents granted and pending.



**CALEDONIAN MECHANICAL HANDLING
CO. LTD.**

21 OLD CASTLE ROAD, GLASGOW S.4

Telephone: MERRYLEE 2353

Your Dealer in Scotland

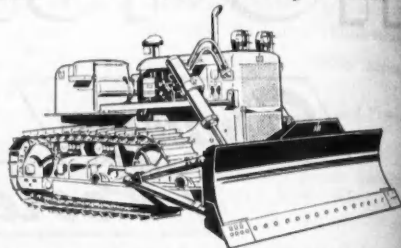


M. & J. Engineers Limited

"CASHEL HOUSE" • 15 THAYER STREET • LONDON, W.1.

Contractors Plant for Hire

DOZERS SCRAPERS COMPRESSORS MIXERS J.C.B's.
EXCAVATORS PUMPS DUMPERS ROLLERS
VIBRATORS TRAFFIC LIGHTS HOISTS RAMMERS



Let us quote you for Earth Moving.

Tel: London: WEL 0702. Depot: LUTON 1884

LORRY-MOUNTED
CRANES
up to 50 tons



G.W.
SPARROW

& SONS LTD

**CRANE HIRE SPECIALISTS
& LIFTING CONTRACTORS**

★ CAPACITIES 2 TO 70 TONS (Heavier loads with 2 or more cranes)
★ DISTANCE NO PROBLEM
★ JIBS TO 240 FEET
★ Phone BATH 78158, 78450, 78491

G. W. SPARROW AND SONS LIMITED
LOWER BRISTOL ROAD • BATH • SOMERSET

CRAWLER
CRANES
up to 35 tons



B
Y

R
O
A
D

GRADED CLINKER

Speciality: Washed and Graded Clinker Filter Media
Largest Screening Plant in London, output 100,000 tons per annum

G. J. PALMER & SONS

Ferndale Works, Manorway, East Ham, E.6

DEPOTS AND WHARVES, BARKING, POPLAR AND KINGSTON-ON-THAMES

Established 1869

Ring Albert Dock 3464 (4 lines)

&

R
A
I
L

ASHES & BREEZE

ROAD FORMS

(CHANNEL AND FLEXIBLE)



The finest

Road Forms on the market today—
and the keenest prices in the field.

All plant fully guaranteed to meet our specification.
Prices and full details on request.

AUDAX, CENTRAL AVENUE, WEST MOLESEY, SURREY.

Telephone: Molesey 6071 (8 lines).





DELMAG

DIESEL PILE DRIVERS

in use
throughout
the world.

U.K. users include:

Aerocem Ltd.	A. Long & Co. Ltd.
Ashley Plant & Equip. Ltd.	Sir Alfred McAlpine Ltd.
J. G. Auto Spares Ltd.	Sir Robert McAlpine & Sons Ltd.
Balfour Beatty & Co. Ltd.	J. T. Mackley & Co. Ltd.
George Boyle Ltd.	Marples, Ridgway & Partners Ltd.
Wm. N. Bolton & Sons Ltd.	Mears Bros. (Contractors) Ltd.
Charles Brand & Sons Ltd.	Melville Dundas & Whitson Ltd.
Brims & Co. Ltd.	James Miller & Partners Ltd.
Cementation Co. Ltd.	Mitchell Construction Co. Ltd.
Christiani & Nielsen Ltd.	A. Monk & Co. Ltd.
Richard Costain Ltd.	Moose's Plant Ltd.
Wm. Cowlin & Son Ltd.	Motherwell Bridge Contractors
Crowley Russell & Co. Ltd.	& Trading Co. Ltd.
Crown Agents for the Colonies	John Mowlem & Co. Ltd.
W. A. Dawson & Co. Ltd.	Nordern (Northern Civil
Demolition & Construction	Engineering & Harbour
Co. Ltd.	Construction Co. Ltd.)
G. Dew & Co. Ltd.	Norwest Construction Co. Ltd.
Dickerson Plant & Engineering	Nott, Brodie & Co. Ltd.
Co. Ltd.	Edmund Nuttall, Sons & Co.
R. M. Douglas (Contractors) Ltd.	(London) Ltd.
Elstree Engineering	Sir Lindsay Parkinson & Co. Ltd.
Services Ltd.	Pauling & Co. Ltd.
I. Fairclough Ltd.	Rush & Tompkins Ltd.
A. E. Farr Ltd.	Strangford Ltd.
Farrans Ltd.	Sun Plant Hire Co. Ltd.
F. C. Construction Co. Ltd.	Symonette Shipyards Ltd.
W. & C. French Ltd.	Tarslag Ltd.
J. Gerrard & Sons Ltd.	G. Tate & Son Ltd.
Greenham Equipment Ltd.	Taylor Woodrow
H. D. Foundations Ltd.	Construction Ltd.
Hills Plant Ltd.	J. G. Thompson & Sons
Holland & Hannen & Cubitts Ltd.	(Contractors) Ltd.
Holloway Bros. (London) Ltd.	Turiff Construction Co. Ltd.
Holst & Co. Ltd.	Dudley Vale Ltd.
R. G. Horton Engineering Ltd.	Vales Plant Register Ltd.
Irish Engineering & Harbour	A. Waddington & Son Ltd.
Construction Co. Ltd.	Westminster Plant Ltd.
J. L. Kier & Co. Ltd.	Wilson Lovatt & Sons Ltd.
John Laing & Son Ltd.	Viaduct Contractors
Lehane, Mackenzie & Shand Ltd.	Supplies Ltd.
Peter Lind & Co. Ltd.	George Wimpey & Co. Ltd.
Duncan Logan (Contractors) Ltd.	Yorkshire Hannebique
Lomount Construction Ltd.	Contracting Co. Ltd.

**BURLINGTON WORKS, ABBEY RD.,
PARK ROYAL · LONDON · N.W.10**
Tel: ELGAR 6777 (4 lines)

CET (PLANT) LIMITED

Telephone: GRA 3401-3

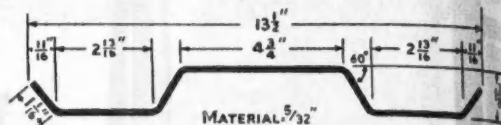
ARTHUR FOSTER (EAST HAM) LTD.

STEVENAGE ROAD, EAST HAM, E.6

**FOR HIRE—ERECTION
PLANT AND TACKLE TO
LIFT UP 100 TONS**

Neagron TRENCH SHEETING

FOR SALE or HIRE



4/2d. per sq. ft. delivered

Stock lengths of 6, 8, 10, 12 and 14 feet

Weight 8 1/2 lbs. ft.

Driving caps available at 45/- each

Neagron (CONSTRUCTION) Ltd.

ABBAY HOUSE, VICTORIA STREET, LONDON, S.W.1
Telephone: ABBey 5152 (5 lines). SULLivan 7626 (5 lines)

YOU'RE RIGHT ON
THE MARK ----

When you choose

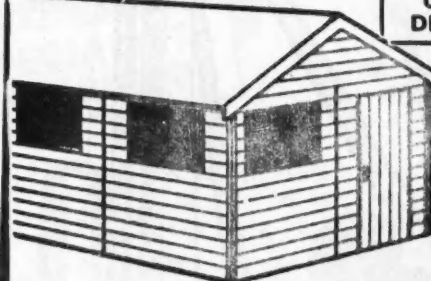
Evans OF BOW

For all your needs in Scaffolding
and Non-Mechanical Building
Equipment.

G. EVANS & SONS LTD., BURNSIDE WHARF,
BURNSIDE STREET, BOW, LONDON, E.3
Telephone: ADVance 5691/2/3



SITE CABINS by ASH

Moulded, rebated,
weatherboard clad.EX-STOCK OR PROMPT DELIVERY
All heights 6' 6" to eavesUNIT
DESIGN16' x 8' 6" 1/2
24' x 12' 6" 1/2
36' x 18' 6" 1/2Complete
with floor
Literature
on
requestTelephone:
CHEETHAM
HILL 6560

R. ASH & SON LTD., CHEETHAM HILL, MANCHESTER 8



POURING SKIPS

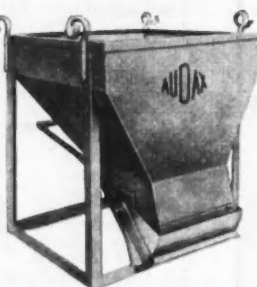
Bottom or side discharging,
both styles in sizes 10, 15 and
27 cu. ft.

Or sizes to customers' requirements

*the finest
on the market today —
and the
keenest prices in the field*

Full particulars from the actual manufacturers
AUDAX

CENTRAL AVENUE, WEST MOLESEY, SURREY. Telephone: Molesey 6071 (8 lines)



DIVING SPECIALISTS

Underwater
Surveys.Underwater
Cutting,
Welding,
Explosive work.DIVERS,
PROGHER
AND PLANT
HIRE
PREPARED

LTD.

UNDERWATER CONSULTANTS

Immediate and efficient teams available anywhere in the world

For Diving Contracts, consult:

MARTIN WELDING AND CUTTING CO. LTD.

Tel: (day) Dartford 24139

DARTFORD, KENT

(night) Farningham 242

**WE'LL MOVE
HEAVEN &
EARTH
FOR YOU!**



HLS PLANT LTD

**Are the People
to contact ...**

- EARTH MOVING ● Sub Contractors
- SITE CLEARANCE ● PLANT-HIRE

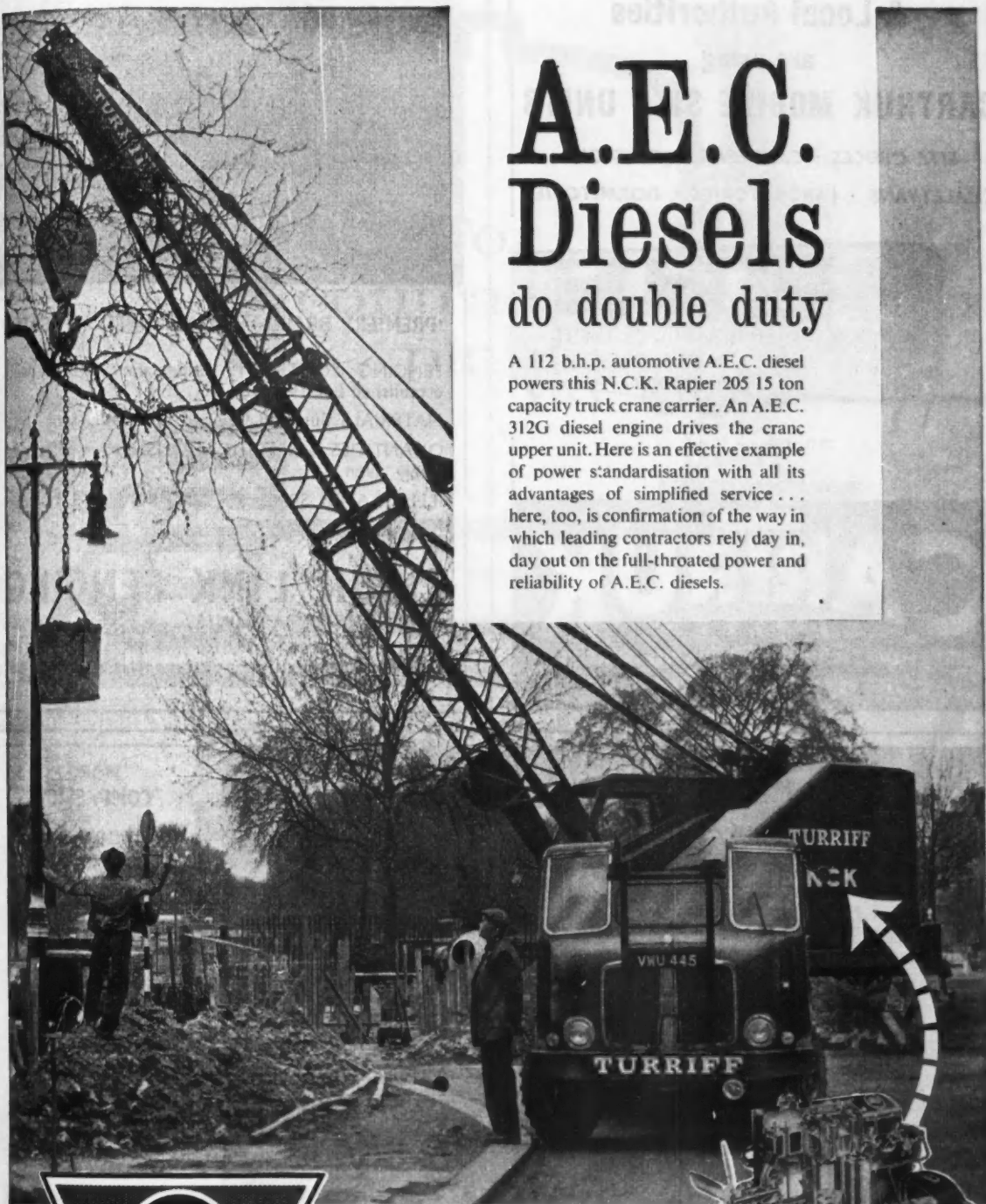
SCRAPERS — DOZERS — SHOVELS
HAULIERS — GRADERS — CRAWLERS
LARGE FLEET OF TIPPING LORRIES

Phone
EPPING
2252

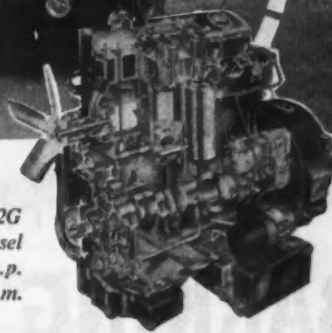
HLS (plant) LTD. THORNWOOD COMMON · EPPING · ESSEX

A.E.C. Diesels do double duty

A 112 b.h.p. automotive A.E.C. diesel powers this N.C.K. Rapier 205 15 ton capacity truck crane carrier. An A.E.C. 312G diesel engine drives the crane upper unit. Here is an effective example of power standardisation with all its advantages of simplified service... here, too, is confirmation of the way in which leading contractors rely day in, day out on the full-throated power and reliability of A.E.C. diesels.



*The A.E.C. 312G
4 cyl. industrial diesel
develops 52 b.h.p.
at 1350 r.p.m.*



A.E.C. LIMITED • DIESEL ENGINE DIVISION • SOUTHALL • MIDDLESEX

More and More Civil Engineers & Local Authorities

are using

CARTRUK MOBILE SITE UNITS

SITE OFFICES • CANTEENS • ABLUTIONS

CHALETVANS • LABORATORIES • DORMITORIES



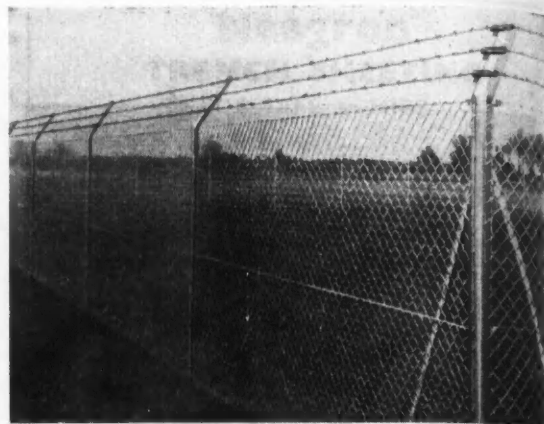
22 ft. Director Model

Phone: STOCKPORT 5227/8

CARTRUK

LIMITED

"BEEHIVE MILL", MARSLAND STREET,
PORTWOOD, STOCKPORT



'PREMIER' BRAND FENCING UNITS & GATES

FENCING CONTRACTS Undertaken through well established Local Agents.

MATERIALS Supplied Only, if required.

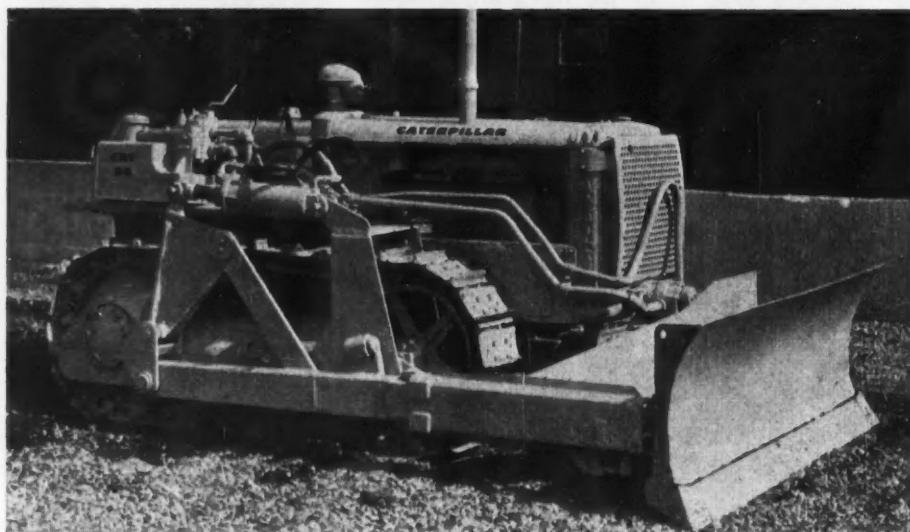
QUANTITIES & SPECIFICATIONS drawn up, advice freely given.

ILLUSTRATED SPECIFICATION LEAFLETS available on request.

CHAIN LINK FENCING LIMITED

KING'S LANGLEY • HERTS.

Telephone: King's Langley 4041/2/3




MOBILE
COMPRESSORS
•
PORTABLE
COMPRESSORS
•
EXCAVATORS
•
MECHANICAL
SHOVELS
•
TRAXCAVATORS
•
DUMPERS
•
BULLDOZERS
•
ROAD ROLLERS
•
CONCRETE
MIXERS

for Plant Hire

BARKING DEVELOPMENTS CO. LTD.

FRESH WHARF, HIGHBRIDGE ROAD, BARKING, ESSEX

PHONE: RIPPLEWAY 2408 & 1245



For
contractors'
plant

BANK ON BOWMAKER

and get credit for it

Contractors' plant — and industrial equipment — can be bought on favourable credit terms through Bowmaker. Your local Bowmaker Branch Manager (under Bowmaker in the telephone book) will give you full details.

Motor vehicles, farming equipment, school fees, central heating, a boat . . . Bowmaker credit plans solve a lot of immediate problems for a lot of people.



THE BOWMAKER GROUP

HEAD OFFICE: BOWMAKER HOUSE, LANSDOWNE, BOURNEMOUTH, HANTS

LONDON OFFICE: BOWMAKER HOUSE, 55 ST. JAMES'S STREET, LONDON, S.W.1



Members of the Finance Houses Association

BRANCHES THROUGHOUT THE BRITISH ISLES

SITE HUTS?



Ring F. & H.

SUTCLIFFE'S

Above "GARSTANG" 12 x 8ft. £59.18
Also 16 x 8ft. £77 and 20 x 8ft. £94.2
DELIVERY

EX-STOCK

Made from Columbian Pine and Baltic
Deal for rough usage. Also the
"LANGDALE" 8 x 5ft. £23.6. Write
or phone for details NOW.

DISCOUNT TO BUILDERS & CONTRACTORS

or HUTTED CAMPS?

We quote keen prices for all types of big buildings with high recovery value,
including Staff Bungalows, Recreation Rooms, Dormitories, Canteens Etc.

Ask for representative to call.

F. & H. SUTCLIFFE LTD. 83 Wood Top, Hebden Bridge, Tel. 217-8-9 Yorks.
Manufacturers of Sectional Buildings for Home and Overseas

FROM

12'1

PER SQ. FT.

5 YEARS' GUARANTEE

THE SEAL OF SATISFACTION
WITH ALL TIMBER BUILDINGS

FOR IMMEDIATE HIRE

DELMAG

P.14 DIESEL PILE EXTRACTOR

DELMAG

D.22 DIESEL PILE DRIVER
WITH ANCILLARY EQUIPMENT

Write or phone:

BURLINGTON PLANT & HIRE LTD.
BURLINGTON WORKS, ABBEY RD.
PARK ROYAL, LONDON, N.W.10.

Tel. ELGAR 6777 (4 lines)

for BETTER CONCRETE CURING CURING OF CEMENT-SOIL MIXTURES



Polythene film



BRITISH CELLOPHANE LIMITED Plastic Films Division

Henrietta House,
9 Henrietta Place,
London, W.1

Tel: MUSeum 8311

NAME
ADDRESS
BUSINESS CJ/PM

A new method of concrete curing, patented by British Cellophane Limited, produces stronger rafts and saves labour. A sheet of BCL polythene film, .0005" to .001" thick, is laid over the concrete to be cured. As the weight per unit area of this very thin sheet approximates to the surface tension of the water on top of the concrete, expressed in similar terms, the sheet is held in place by the surface tension of the water and will not be displaced by wind.

Curing is even and 95% of the water is retained in the raft. This results in near-perfect hydration and, consequently, a stronger raft. No watering is required at any stage.

Cement-soil mixtures, too, are better cured by this method which is the subject of British Patent No. 809082.

We should like to tell you more about this method—and about the many other ways in which BCL polythene film can help you. Please complete and return the coupon and we shall gladly arrange for one of our specialist representatives to call on you.



TRAXCAVATORS FOR HIRE

ALSO AVAILABLE

DERRICKS • BULLDOZERS
TRENCH DIGGERS
LOADING SHOVELS
LOCOMOTIVES
ROAD BREAKERS
SAW BENCHES • PUMPS
DUMPERS
MOBILE CRANES
CONCRETE MIXERS
EXCAVATORS • COMPRESSORS
ROLLERS
Etc., Etc.

Sole Agents for:

PINGON
TOWER CRANES

from the

LARGEST PLANT FLEET

in the country

GEORGE COHEN

SONS AND COMPANY LIMITED

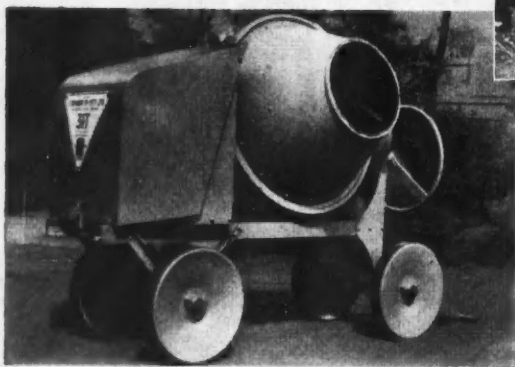
WOOD LANE, LONDON, W.12

Shepherds Bush 2070

And at: Stanningley, Nr. Leeds; Kingsbury, Nr. Tamworth; Bath; Manchester; Newcastle; Sheffield;
Glasgow; Swansea; Southampton; Belfast.



CONTRACTORS PLANT by STOTHERT & PITT LTD



2



STOTHERT & PITT LTD • ENGINEERS • BATH • ENGLAND

London Office: 38 Victoria Street, S.W. 1.

Midland Office: Lightning Way, Alvechurch Road, West Heath, Birmingham 31.



1

1. VIBROLL 32R The S & P Vibroll 32R is a power propelled Tandem vibrating roller which uses a patented system of roll vibration to ensure dynamic compaction of a variety of soils and materials. Weighing only 17½ cwt. and with a 32 inch wide roll driven by a 5½ h.p. petrol engine it has the efficiency of a deadweight roller many times its size. Diesel drive can be supplied as alternative to petrol.



3

2. 3½T CONCRETE MIXER Ideal for builders and contractors, the S & P 3½T mixer is a strongly built machine with a mixed batch capacity of 3½ cu. ft. The multi-plane, four bladed mixing drum, driven by a 1½ h.p. diesel engine ensures consistent mixing of all normal batches within one minute.

3. VIBROLL 28W Another machine in the Vibroll range, the S & P Vibroll 28W is a power propelled, hand guided vibrating roller particularly suitable for rolling steep gradients. Weighing only 7½ cwt., and with a 28 inch wide roll it will, like all Vibroll rollers, compact materials as varied as soils, gravel, sand, ballast, ashes, asphalt, tarmacadam and dry-mix concrete with remarkable efficiency. The machine is shown mounted on our 7RT Trailer for ease of transport.

4. 7T HYDRAULIC CONCRETE MIXER The S & P 7T Hydraulic (7 cu. ft. mixed batch capacity) is fitted with patented hydraulic drum transmission gear, finger-tip skip control, push button operated scoop gear, hydraulic weigh gear and water meter, thereby producing "quality" concrete with a minimum of labour. Discharge height 3 ft. 6 ins.

CONTRACTORS SERVICES LTD ANNOUNCEMENT

*

**Our new 'phone
number is now—**

**Brixton
7766**
(7 lines)

**TRY IT TODAY FOR HIRE OF
COMPRESSORS**

*

65 EFFRA RD. LONDON S.W.2

CONTRACTS

WORCESTERSHIRE COUNTY COUNCIL.
HIGHWAYS AND BRIDGES DEPARTMENT.

The Council invite TENDERS from experienced contractors for SURFACE DRESSING WORK (Hot Process) by Pressure Tank (Labour and Plant only) during the year ending 31st March, 1963.

Tender Form, with Specification and Conditions of Contract, can be obtained on application to the County Surveyor, County Buildings, Worcester, which must be returned, duly completed, not later than Noon on the 12th DECEMBER, 1961.

The Council will not necessarily accept the lowest or any Tender, and they may accept the whole or any part of any Tender.

W. R. SCURFIELD,
Clerk of the County Council.
(T.116.)
Shirehall,
Worcester.
14th November, 1961.

BOROUGH OF WESTON-SUPER-MARE.
WINTERSTOKE ROAD IMPROVEMENT.

TENDERS for the ABOVE SCHEME are invited from suitably experienced contractors. The work includes Clearing of approx. 750 yd. of Ditch, and Paving in 18 in. and 24 in. dia. Concrete Pipes, together with the Construction of approx. 12,500 sq. yd. of Tarmacadam Carriageway, together with Kerbing, Channelling and Footway Works.

Applications for Tender documents should be made to the Borough Engineer and Surveyor (where Conditions of Contract and Drawings may be inspected during normal office hours), together with a deposit of £2 2s., returnable on receipt of a bona-fide Tender.

Tenders, on the prescribed form, sealed in the envelope provided, must be delivered to the undersigned by Noon, MONDAY, 18th December, 1961.

The Council does not bind itself to accept the lowest or any Tender.

R. G. LICKFOLD,
Town Clerk.
Town Hall,
Weston-super-Mare.

BOROUGH OF CHATHAM.
NELSON TERRACE DEVELOPMENT.

TENDER documents for this work will be available shortly, and building contractors who wish to tender are invited to submit their names to J. A. T. RICHARDS, Borough Surveyor, together with a deposit of Two Guineas, which will be returned on receipt of a bona-fide Tender.

The project consists of: One Block of five Bungalows; One Block of 12 Two-storey Flats; One Block of 18 Four-storey Flats and Garages; together with all ancillary works and a Public Convenience adjoining which will be considered separately.

The last day for submission of Tenders is 12 Noon on the 19th DECEMBER, 1961.

The Council does not bind itself to accept the lowest or any Tender.

R. W. E. HILL,
Town Clerk.
Town Hall,
Chatham, Kent.

BOROUGH OF MIDDLETON.
PRIVATE STREET WORKS—BAKER STREET.

TENDERS are invited for the MAKING-UP of the ABOVE STREET, comprising approx. 1,600 sq. yd. of Carriageway, Footways and Verges, together with Drainage Works.

Plans and Sections may be inspected at, and Contract documents obtained from, the Office of the Borough Engineer and Surveyor, Town Hall, Middleton, on receipt of a deposit of £2 2s., which will be returned on receipt of a bona-fide Tender not subsequently withdrawn.

Tenders, in plain sealed envelopes suitably endorsed, are to be delivered to the undersigned not later than Noon on WEDNESDAY, 13th December, 1961.

The Council does not bind itself to accept the lowest or any Tender.

F. JOHNSTON,
Town Clerk.
Town Hall,
Middleton,
Near Manchester.
14th November, 1961.

BOROUGH OF MIDDLETON.
PRIVATE STREET WORKS—CLIFTON ROAD.

TENDERS are invited for the MAKING-UP of the ABOVE STREET, comprising approx. 880 sq. yd. of Carriageway, Footways and Verges, together with Drainage Works.

Plans and Sections may be inspected at, and Contract documents obtained from, the Office of the Borough Engineer and Surveyor, Town Hall, Middleton, on receipt of a deposit of £2 2s., which will be returned on receipt of a bona-fide Tender not subsequently withdrawn.

Tenders, in plain sealed envelopes suitably endorsed, are to be delivered to the undersigned not later than Noon on WEDNESDAY, 13th December, 1961.

The Council does not bind itself to accept the lowest or any Tender.

F. JOHNSTON,
Town Clerk.
Town Hall,
Middleton,
Near Manchester.
14th November, 1961.

SEVENOAKS URBAN DISTRICT COUNCIL.
PROPOSED SOIL SEWER AT HOPGARDEN LANE, SEVENOAKS.

The Council invites TENDERS for the CONSTRUCTION of a 18 in. dia. GLAZED STONEWARE SOIL SEWER, together with Manholes, and ancillary work.

The Specification, Bills of Quantities, Conditions of Contract and Form of Tender can be obtained from the Engineer and Surveyor, Council Offices, Argyll Road, Sevenoaks, Kent, upon payment of £2 2s. deposit, returnable upon receipt of a bona-fide Tender.

The Plans can be inspected at the Engineer and Surveyor's Office during office hours (excluding Saturdays).

Tenders must be returned to the undersigned not later than Noon on FRIDAY, 15th December, and no Tender will be received except in the official tender envelope, sealed and endorsed "Tender for Soil Sewer—Hopgarden Lane," but shall not bear any mark or name indicating the tender.

The Council does not bind itself to accept the lowest or any Tender.

A. F. E. DAVIS,
Clerk of the Council.
Council Offices,
Argyll Road,
Sevenoaks,
Kent.

CONTRACTS

KENT COUNTY COUNCIL.
ST. THOMAS' CROSS, ORLESTONE.

TENDERS are invited, by not later than 15th DECEMBER, 1961, for ROAD IMPROVEMENT WORKS at St. Thomas' Cross, Orlestone, on Ashford-New Romney Road, B.2070.

Contract documents, obtainable from County Surveyor, County Hall, Maidstone, on payment of deposit of £2 2s., returnable upon receipt of bona-fide Tender.

G. T. HECKELS,
Clerk of the County Council.

COUNTY BOROUGH OF IPSWICH.
EASTERN AREA INTERCEPTING SEWER.

CONTRACT NO. 1.

Applications are invited from contractors in connection with the ABOVE SCHEME, which includes the FOLLOWING:

Approx. 1,000 lin. yd. Brick-lined Concrete Segmental Tunnel Sewers 65 in. and 72 in. dia. and approx. 2,400 lin. yd. 27 in., 60 in., 63 in. and 72 in. Sewers in Strengthened Concrete Pipes, together with Reinforced Concrete Stilling Basin and Cascade Overflow, Shafts, Manholes, and ancillary works.

Contractors wishing to tender should send their names and addresses to the Borough Surveyor, 19 Town Street, Ipswich, together with a deposit of £5 5s., which will be returned upon receipt of a bona-fide Tender.

It is anticipated that Tender documents will be available on 1st December, 1961.

Tenders, in plain sealed envelopes bearing the words "Tender for Eastern Area Sewer," but with no name or mark indicating the tender, must be received by the undersigned by 12 Noon on FRIDAY, 5th January, 1962.

The Council does not bind themselves to accept the lowest or any Tender.

J. C. NELSON,
Town Clerk.
Town Hall,
Ipswich.

BOROUGH OF WATFORD.
WATER DEPARTMENT.

ANNUAL CONTRACT—SUPPLY OF SALT 1962/63.

TENDERS are invited for the SUPPLY OF SALT for Base-Exchange Softening Plant Regenerating Purposes during the year ending 31st March, 1963.

Documents may be obtained on application to J. R. COLLINS, A.M.I.C.E., A.M.I.W.E., M.R.S.H., Borough Water Engineer and Manager, Water Department, Town Hall, Watford.

Tenders and completed documents are to be enclosed in the sealed envelope provided, and must be delivered to the undersigned not later than 2 p.m. on TUESDAY, 26th December, 1961.

The Council does not bind itself to accept the lowest or any Tender.

GORDON H. HALL,
Town Clerk.
Town Hall,
Watford.

BOROUGH OF BARKING.

TENDERS, returnable by 9 a.m. TUESDAY, 19th December, are invited for CARRYING OUT the FOLLOWING WORKS:

(1) Resurfacing of Fanshawe Avenue, A.123. The Surfacing of 2,500 sq. yd. Concrete Carriageway with Single Course Hot Rolled Asphalt, including Repair to Base where necessary.

(2) Lodge Avenue—Improvement of Woodward Road Junction and Construction of Layby. The Carrying out of the above Works, which include for the Construction of approx. 550 sq. yd. of Concrete Carriageway, Bitumen Macadam Surfacing, ancillary Kerbs, Paving and Drainage Works.

(3) River Road Pumping Station—Replacement of 24 in. Rising Main, —The Supply and Construction of approx. 300 lin. yd. of 24 in. Cast-Iron Rising Main. The works will include for all necessary Excavations and Reinstatement and the Construction of a River Outfall.

Specification, Bill of Quantities and Form of Tender can be obtained on application to the Borough Engineer and Surveyor, Town Hall, Barking, Essex.

E. R. FARR,
Town Clerk.
Town Hall,
Barking.

BOROUGH OF WISBECH.
MAIN SURFACE WATER SCHEME—NORWICH ROAD; TOGETHER WITH ROADS AND SEWERS FOR SEFTON AVENUE AND TINKER'S DROVE HOUSING ESTATES.

TENDERS are invited for the EXECUTION of the ABOVE SCHEME.

Briefly, the works comprise the Laying of approx. 1,200 lin. yd. of Flexible Jointed Concrete Pipes of various diameters from 9 in. to 18 in., 200 lin. yd. of 6 in. dia. Salt Glazed Ware Pipes, together with Manholes and other ancillary works; also approx. 1,700 sq. yd. of Lean Concrete Carriageway, 650 lin. yd. of Kerbs and Channels, and six Brick-built Soakaways.

Forms of Tender, Specification, Bills of Quantities, Plans, etc., may be obtained from the Borough Engineer and Surveyor, Church Terrace, Wisbech, Cambs. on payment of Two Guineas which will be returned on receipt of a bona-fide Tender not subsequently withdrawn, and all documents supplied.

Tenders to be forwarded, in the envelope provided, to reach the undersigned not later than 12 Noon on WEDNESDAY, 20th December, 1961.

All contracts are subject to the Standing Orders of the Council, and the Council does not bind itself to accept the lowest or any Tender.

W. G. E. LEWIS,
Town Clerk.
Town Hall,
Wisbech, Cambs.

BOROUGH OF FARNWORTH.

KERBING AND FLAGGING WORKS—GEORGE STREET AND LABURNUM ROAD.

TENDERS are invited for KERBING AND FLAGGING WORKS in the ABOVE STREETS.

Bills of Quantities, and Form of Tender may be obtained on application to the Borough Engineer and Surveyor, Town Hall, Farnworth, Lancs.

Tenders, in plain sealed envelopes, endorsed "Kerbing and Flagging Works," must be returned to the undersigned not later than FRIDAY, 15th December, 1961.

THOMAS HITCHEN,
Town Clerk.
Town Hall,
Farnworth, Lancs.

CONTRACTS

LINDSEY COUNTY COUNCIL.
AMENDED ADVERTISEMENT.

SHEFFIELD-GRIMSBY TRUNK ROAD, A.18.
IMPROVEMENT OF THE APPROACHES TO THE KEADBY TRENT BRIDGE, NEAR SCUNTHORPE.

TENDERS are invited for the REALIGNING, WIDENING and REGRADING of the TRUNK ROAD for a total distance of approx. 800 lin. yd.

The work comprises, inter alia, the FOLLOWING:

- (1) The Lowering of the Trunk Road across the Railway Bridge and Lane Crossing, on the western approach.
- (2) Improvement of Junction with Road B.1431, including column and bollard lighting.
- (3) 4,800 sq. yd. new Carriageway (dressed base and surfacing), 5,000 sq. yd. Carriageway Reshaping, 3,500 sq. yd. Tarmacadam Footpath, 6,000 cu. yd. Excavation.
- (4) Fencing, Surface Water Drainage, Kerbs and 'Bus Draw-ins.

Tender documents may be obtained from the County Surveyor, County Offices, Newland, Lincoln, on payment of a deposit of £5 5s. (cheques payable to Lindsey County Council) which deposit will be returned on receipt of a bona-fide Tender.

The Drawings may be inspected, by appointment at the above address, or at the Offices of the Divisional Road Engineer, Ministry of Transport, Block 6, Government Buildings, Chalfont St. Giles, Buckingham, during normal office hours (Monday to Friday).

Tenders, in sealed envelopes, without any mark indicating the tender, are to be delivered to the undersigned by 10 a.m. on WEDNESDAY, 20th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender, and the acceptance will be subject to the approval of the Ministry of Transport County Offices.

Newland, Lincoln.
17th November, 1961.

COUNTY BOROUGH OF SUNDERLAND.

TENDERS are invited for the CONSTRUCTION of FOOTPATHS, comprising approx. 11,500 sq. yd. of 2 1/2 in. Precast Concrete Flagging and Re-laying approx. 5,000 sq. yd. of existing Concrete Flagging.

Tender documents obtainable from Borough Engineer, 27 Fawcett Street, Sunderland, on payment of £2 2s., refundable on receipt of a bona-fide Tender. Cheques payable to Sunderland Corporation.

Sealed Tenders, endorsed "Tender for Construction of Footpaths—Thorney Close Estate (Phase II)," must be received by me not later than 19th DECEMBER, 1961.

G. S. MCINTIRE,
Town Clerk.

BOROUGH OF HESTON & ISLEWORTH.
ISLEWORTH SWIMMING BATHS.

FIXED-PRICE TENDERS are invited from building contractors to execute BITUMEN FELT ROOFING, NEW LIGHTING, REDECORATIONS and ALTERATIONS to CHANGING ACCOMMODATION.

Firms wishing to tender should apply to Borough Engineer and Surveyor, 88 Lampton Road, Heston, Middlesex, and deliver their tenders to me by 10 a.m., 13th DECEMBER, 1961.

D. MATHIESON,
Town Clerk.

Town Hall,
Hounslow, Middx.

BOROUGH OF WREXHAM.
DEMOLITION.

THE COUNCIL invite FIXED-PRICE TENDERS for the DEMOLITION of the FOLLOWING:

(a) Former Guildhall, Chester Street, Wrexham.
(b) Former Borough Surveyor's Office, Chase Street, Wrexham.

Conditions, Specification and Form of Tender may be obtained from the Borough Engineer and Surveyor, Guildhall, Wrexham, on payment of £1 1s. in respect of each Contract, returnable on receipt of bona-fide Tenders.

Tenders to be submitted to the undersigned, in the official envelope provided, by not later than 12 Noon, MONDAY, 11th December, 1961.

PHILIP J. WALTERS,
Town Clerk.

Guildhall,
Wrexham.
14th November, 1961.

CITY OF STOKE-ON-TRENT.
HIGHWAYS ACT, 1959.
MAKING-UP OF PRIVATE STREETS.

LEVITA ROAD (PART), TRENT VALE—SCHEME NO. 41.

FREMANTLE ROAD (PART), TRENT VALE—SCHEME NO. 42.

THE CORPORATION invite TENDERS for the MAKING-UP of the ABOVE STREETS.

Drawings and Conditions of Contract may be seen and Bills of Quantities and Specifications obtained from the City Surveyor's Department, Town Hall, Stoke-on-Trent, on payment of £2 which shall be returned on receipt of a bona-fide Tender.

Tenders and priced Bills of Quantities must be delivered to the Town Clerk, Town Hall, Stoke-on-Trent, in the separate envelopes provided, not later than 12 Noon on the 6th DECEMBER, 1961.

HARRY TAYLOR,
Town Clerk.

URBAN DISTRICT COUNCIL OF GAINSBOROUGH.
DEMOLITION OF NOS. 3, 5, 6A, 7, and 14A MARKET STREET.

The Council invite TENDERS for the DEMOLITION and CLEARING OF SITE of the ABOVE-MENTIONED PROPERTIES.

Copies of the Specification and Plans may be obtained from, and General Conditions of Contract may be examined at, the Office of the Engineer and Surveyor.

Tenders, enclosed in plain envelopes and bearing no mark or identification of the tender, and sealed, must be delivered to the undersigned not later than Noon on MONDAY, 11th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

H. P. DOREY,
Clerk of the Council.
Council Offices,
Lord Street,
Gainsborough.
November, 1961.

CONTRACTS

MERIONETH COUNTY COUNCIL.

HIGHWAYS AND BRIDGES DEPARTMENT.

ANNUAL CONTRACTS, 1962-63.

TENDERS are invited for the UNDERMENTIONED for the financial year commencing 1st April, 1962.—

- (1) Tarmac and Bitumen Macadam.
- (2) Roadstone, Building Stone, Sand, etc.
- (3) Road Haulage and Haulage of Materials.
- (4) Hire of Rollers and Contractors Plant.
- (5) Road Tar, Asphaltic Bitumen and Bitumen Emulsion.
- (6) Concrete Kerbs, Flags and Pipes.
- (7) Traffic Signs.
- (8) Heating and Planning of Road Surfaces.
- (9) Supply and Fixing of Reflecting Roadstuds.
- (10) Supply and Fixing of Plastic Lines.
- (11) Coal for Plant.
- (12) Ironmongery, Tools, Brushes, etc.
- (13) Surface Dressing of Roads.
- (14) Road and Enamel Paint.
- (15) Protective Clothing.
- (16) Fences, Posts and Gates.

Conditions of Contract and brief Specifications may be obtained by sending a stamped addressed envelope to the County Surveyor, County Offices, Dolegellau, Gwynedd, or to the Clerk of the Council, County Offices, Dolegellau, not later than MONDAY, the 11th December, 1961.

BOROUGH OF RAWTENSTALL.

CONSTRUCTION OF CULVERT AT MEADOW HEAD TIP.

TENDERS are invited for the CONSTRUCTION of a CULVERT for the Stream known as BALLADEN CLOUGH. The work comprises the Formation of an Open Earth Channel 270yd. long, and the Excavation and Provision of, 200yd. of 36in. Reinforced Concrete Pipes.

The Contract will also include the Construction of a Brick Manhole and a Reinforced Concrete Inlet Channel, together with other ancillary works. Tender documents may be obtained from the Borough Engineer and Surveyor, Town Hall, Rawtenstall, Lancashire, on payment of a deposit of Two Guineas, refundable on receipt of a bona-fide Tender not subsequently withdrawn.

Tenders must be submitted in the envelope provided, and endorsed in accordance with the instructions in the documents, addressed to the undersigned, and delivered not later than Noon on TUESDAY, the 12th of December, 1961.

The Corporation does not bind itself to accept the lowest or any Tender.

COLIN CAMPBELL, Town Clerk.

Town Hall, Rawtenstall, Lancashire, November, 1961.

BOROUGH OF ALTRINCHAM.

PRIVATE STREET WORKS—IRWIN ROAD.

FIXED-PRICE TENDERS are invited for the MAKING-UP OF IRWIN ROAD, Altrincham. Specification, Bill of Quantities and Form of Tender may be obtained from, and Drawings inspected at, the Office of the Borough Surveyor, Town Hall, Altrincham, during normal office hours, upon payment of a deposit of Two Guineas, made payable to the Borough Treasurer.

Tenders must be enclosed in plain sealed envelope endorsed "Private Street Works—Irwin Road," and delivered to the undersigned not later than 12 Noon on MONDAY, 18th December, 1961.

The Council does not bind itself to accept the lowest or any Tender.

E. GRAHAM THOMAS, Town Clerk.

BANSTEAD URBAN DISTRICT COUNCIL.

REIGATE ROAD, A.240—IMPROVEMENT FROM GREAT TATTENHALL TO CLAREMOUNT GARDENS.

TENDERS are invited for the REALIGNMENT, WIDENING AND IMPROVEMENT OF REIGATE ROAD, A.240, from its junction with Great Tattenhall, B.221, to Claremount Gardens.

The works comprise the Construction of 910 sq. yd. lean Mass Concrete Carriageway Foundation, 240 tons Bituminous Macadam Filling to existing Carriageway, 2,800 sq. yd. Bituminous Macadam Surfacing, 750 sq. yd. Kerbs, together with Surface Water Drainage Works, the Construction of Grass Verges, and of Bituminous Macadam Surfaced Footpaths and Crossings, and various ancillary works.

Specifications, Bills of Quantities and Forms of Tender may be obtained from, and Conditions of Contract and Drawings may be inspected at, the Office of the Engineer and Surveyor upon a payment of deposit of £3, returnable on receipt of a bona-fide Tender not subsequently withdrawn.

Tenders, in plain sealed envelopes endorsed "Tender for Reigate Road, A.240—Improvement," must be returned to the undersigned not later than FRIDAY, 15th December, 1961.

The Council does not bind themselves to accept the lowest or any Tender.

F. L. SHAW, Clerk of the Council.

The Council House, Banstead, Surrey, November, 1961.

ABERGELE URBAN DISTRICT COUNCIL.

CLASS "A" STREET LIGHTING.

TENDERS are invited for the INSTALLATION of 175 140-W SODIUM VAPOUR and 13 250-W COLOUR-CORRECTED MERCURY VAPOUR LIGHT-FIXTURES, in Water Street, Dundonald Avenue, Marine Road and Town Road, Penrith; and in Town Road, Towry and Ford Road, Kinnel Bay; all forming part of A.548.

Specification, Bills of Quantities and Form of Tender may be obtained from, and Plans inspected at, the Office of the Engineer and Surveyor, Town Hall, Penrith, Mawr, Abergelle, on payment of a deposit of £3, returnable on receipt of a bona-fide Tender not later than 12 Noon on TUESDAY, 19th December, 1961.

The Council does not bind itself to accept the lowest or any Tender.

EDWARD J. LLOYD, Clerk of the Council.

Town Hall, Penrith, Mawr, Abergelle, 20th November, 1961.

CONTRACTS

BOROUGH OF HARROW.

JUNCTION OF PINNER ROAD/WOODLANDS, NORTH HARROW.

TENDERS are invited for ROADWORKS, involving RELAYING approx. 200 lin. yd. of KERBING; approx. 2,000 sq. yd. RESURFACING in Hot Rolled Asphalt; PAVING and ancillary works.

Drawings and Conditions of Contract may be inspected at the office of, and a copy of the Form of Tender, Specification and Bills of Quantities obtained on application to, the Borough Engineer at the Council Offices, 48 Uxbridge Road, Stanmore, Middlesex, on payment of Two Pounds, by crossed cheque, made payable to the Harrow Corporation, returnable where a bona-fide Tender reaches me within the prescribed time.

Tenders, on prescribed forms, enclosed in a plain envelope, bearing no indication of the sender, and endorsed, "Tender—Resurfacing Junction Pinner Road/Woodlands," to be delivered to my office, not later than 10 a.m. on TUESDAY, 12th December, 1961.

The Council does not bind themselves to accept the lowest, or any, Tender.

DAVID PRITCHARD, Town Clerk.

Harrow Weald Lodge, Harrow.

BOROUGH OF EALING.

RENEWAL OF ELECTRICAL INSTALLATIONS AT SELBORNE PRIMARY AND SECONDARY SCHOOLS, CONWAY, CRESCENT, GLENFORD, MIDDLESEX.

TENDERS are invited from approved N.I.C.E.C. contractors for ABOVE-MENTIONED WORK. Specification and Tenders from the Borough Engineer, Town Hall, Ealing, W.S., on receipt of deposit of £1, returnable on receipt of a bona-fide Tender.

Closing date, 27th DECEMBER, 1961.

E. J. COPE-BROWN, Town Clerk.

CITY AND COUNTY OF BRISTOL.

TRAFFIC SIGNALS—EAST STREET.

TENDERS invited for SUPPLY AND INSTALLATION OF SYSTEM OF ELECTRICALLY ILLUMINATED, VEHICLE ACTUATED ROAD TRAFFIC AND PEDESTRIAN CONTROL LIGHT SIGNALS at ABOVE JUNCTION, and for LIMITED ANNUAL MAINTENANCE of SAME after installation.

Experienced firms may obtain copies of Plan, Specification and Form of Tender from City Engineer and Planning Officer, Cabot House, Deanery Road, Bristol, 1.

Tenders, enclosed in endorsed envelopes provided, but not bearing any mark to indicate sender, returnable to CITY ENGINEER AND PLANNING OFFICER by 12th DECEMBER.

CITY OF SALFORD.

PROPOSED 120 (16-STORY) FLATS, NEW CHURCH SITE, BURY NEW ROAD, SALFORD, 7.

FIRM-PRICE TENDERS are invited for the CONSTRUCTION OF 120 FLATS in one 16-storey block together with 15 lock-up garages, Services, Roads, Paths and Landscaping at NEW CHURCH SITE, Bury New Road, Salford, 7.

Conditions of Contract and Drawings may be inspected at, and Bills of Quantities and Form of Tender obtained from, the City Engineer and Surveyor's Department, Town Hall, Salford, 3, on payment of a deposit of £5 5s., which will be returned on submission of a bona-fide Firm-Price Tender not subsequently withdrawn.

Firm-Price Tenders, on the prescribed form, sealed in the envelope provided and bearing no other mark or identification, must be forwarded to the undersigned so as to be received not later than 10 a.m. on MONDAY, 8th January, 1962.

The Council does not bind itself to accept the lowest or any Firm-Price Tender.

R. RIBBLESDALE THORNTON, Town Clerk.

CITY OF SALFORD.

PROPOSED ALTERATIONS AND EXTENSIONS TO SEEDLEY COUNTY PRIMARY SCHOOL, LIVERPOOL STREET, SALFORD, 6.

FIRM-PRICE TENDERS are invited for the ALTERATIONS AND EXTENSIONS TO SEEDLEY COUNTY PRIMARY SCHOOL, Liverpool street, Salford, 6.

Conditions of Contract and Drawings may be inspected at, and Bills of Quantities and Form of Firm-Price Tender obtained from, the City Engineer and Surveyor's Department, Town Hall, Salford, 3, on payment of a deposit of £3 3s., which will be returned on submission of a bona-fide Firm-Price Tender not subsequently withdrawn.

Firm-Price Tenders, on the prescribed form, sealed in the envelope provided and bearing no other mark or identification, must be forwarded to the undersigned so as to be received not later than 10 a.m. on WEDNESDAY 3rd January 1962.

The Council does not bind itself to accept the lowest or any Firm-Price Tender.

R. RIBBLESDALE THORNTON, Town Clerk.

PENRITH RURAL DISTRICT COUNCIL.

ARMATHWAITE SEWERAGE AND SEWAGE DISPOSAL.

TENDERS are invited from competent contractors for LAYING about 2,200 yd. of 6in. and 9in. dia. STONEWARE PIPES and 150 yd. of 4in. and 6in. dia. CAST-IRON PIPES with the necessary MANHOLES, etc., a SEWAGE TREATMENT WORKS comprising a Screening Chamber, Settling Tank, Filter, Humus Tank, Sludge Drying Beds and Sludge Well; the repair and overhaul of existing pump-house and pumping machinery, and the laying of 40 yd. of 4in. C.I. pumping main at the village of ARMATHWAITHE, north of Penrith, in the County of Cumberland.

The Contract Documents may be obtained from the Council's Consulting Engineers, MESSRS. WATERHOUSE AND ROUNTHWAITE, 165 Westmorland Road, Newcastle-upon-Tyne 4, on payment of £5 5s. deposit which sum will be refunded on receipt of a bona-fide Tender.

Tenders, on the prescribed form with Schedules of Prices and Estimates of Quantities properly filled in, enclosed in sealed envelopes endorsed "Armathwaite Sewerage" bearing no indication as to the sender, must be delivered to my office not later than Noon on the 8th JANUARY 1962.

The Council does not bind themselves to accept the lowest or any Tender.

R. H. ALLEN, Clerk of the Council.

Mansion House, Penrith, Cumberland.

20th November, 1961.

CONTRACTS

LANCASHIRE COUNTY COUNCIL.

TENDERS are invited for the WIDENING of YARROW BRIDGE carrying Trunk Road A.6 over the River Yarrow, approx. one mile south of Chorley.

The works comprise the Construction of two Footbridges adjacent to Yarrow Bridge. Each footbridge comprises a 40ft. long central span and two 20ft. long outer spans. The Substructure consists of Concrete In-situ Cast Bored Piles extended to form circular columns, and Mass Concrete Bank Seats. The Superstructure consists of Steel Beams encased in Concrete.

The Roadworks involve the Widening of Carriageway to 33ft., and the Construction of Footways.

Plans and Contract documents available on the 4th December, 1961, on application to the County Surveyor and Bridgewaymaster, P.O. Box No. 8, County Hall, Preston, on deposit of £5 which will be refunded only on receipt of a Tender (not subsequently withdrawn) and the return of all documents and drawings supplied.

Cheques to be made payable to Lancashire County Council. Contractors to quote Reference 185/51.

Tenders to be received by the CLERK OF THE COUNTY COUNCIL, County Hall, Preston, not later than 10 a.m. on MONDAY, 8th January, 1962.

URBAN DISTRICT COUNCIL OF RAYLEIGH.

ENGINEER AND SURVEYOR'S DEPARTMENT.

WESTERN AREA SEWAGE SCHEME—STAGE I.

TENDERS are invited for the CONSTRUCTION of approx. 3,370 lin. yd. of 27in., 24in., 21in. and 18in. dia. CONCRETE TRUNK SOIL SEWER, including approx. 570 lin. yd. of 27in. dia. Sewer in heading, together with the Construction of Manholes and incidental works, between the WESTERN AREA SEWAGE WORKS and LONDON ROAD.

The Contract Drawings and General Conditions of Contract may be inspected at, and copies of the Specification, Bills of Quantities and Form of Tender obtained from, the Offices of the Engineer and Surveyor, Council Offices, Hockley Road, Rayleigh, Essex.

Completed Tenders, sealed in the envelope provided, must be delivered to the undersigned not later than Noon on THURSDAY, 28th December, 1961. The Council does not bind itself to accept the lowest or any Tender.

C. E. FITZGERALD, Clerk of the Council.

Council Offices, Hockley Road, Rayleigh, Essex.

CHADDERTON URBAN DISTRICT COUNCIL.

PRIVATE STREET WORKS.

FIXED-PRICE TENDERS are invited for the MAKING-UP OF FERNLEA AVENUE (82 lin. yd.) and parts of FERNHURST STREET (92 lin. yd.) and RADCLIFFE STREET (53 lin. yd.).

Specifications and Bills of Quantities may be obtained from the Engineer and Surveyor, Town Hall, Chadderton, upon deposit of £2 2s., which will be refunded on receipt of a bona-fide Tender.

Tenders, endorsed "Tender—Private Street Works," must be delivered in a plain sealed envelope to the undersigned by 18th DECEMBER, 1961.

L. STOTT, Clerk of the Council.

Town Hall, Chadderton, 17th November, 1961.

SEISDON RURAL DISTRICT COUNCIL.

TRYSELL AND SEISDON SEWAGE SCHEME.

CONTRACT NO. 1.

The Council invite TENDERS from public works contractors having substantial previous experience of such works for the LAYING OF approx. 3,950 lin. yd. of 9in. dia., 1,750 lin. yd. of 7in. dia., and 1,030 lin. yd. of 6in. dia. Sound Concrete and Sound Iron PIPE SEWERS together with Concrete Tube Manholes, a Sewage Pumping Station, approx. 1,730 lin. yd. of 6in. dia. Sound Iron Pumping Main and other incidental works.

Copies of the Drawings, Specification, Bills of Quantities and Form of Tender can be obtained from the Engineers, MESSRS. WILCOX, RAIKES, AND MARSHALL, 33 Great Charles Street, Birmingham, 3, on or after WEDNESDAY, 20th December, 1961, on application accompanied by a statement of previous similar works executed and a cheque for Five Guineas drawn in favour of the Council as a deposit which will be refunded after the delivery of a bona-fide Tender, not subsequently withdrawn, and the return of all documents submitted.

Tenders, on the form supplied, are to be delivered to the undersigned not later than 12 o'clock Noon on SATURDAY, 3rd February, 1962.

The Council does not bind themselves to accept the lowest or any Tender.

A. R. BASKETT, Clerk of the Council.

Council Offices, Wombourne, Near Wolverhampton.

18th November, 1961.

DRIFIELD RURAL DISTRICT COUNCIL.

SEWERAGE AND SEWAGE DISPOSAL SCHEME—PARISH OF WETWANG.

TENDERS on a Fixed-price Basis, are invited for the CONSTRUCTION OF THE FOLLOWING:

- (a) 1,640 lin. yd. of 6in. dia. Sewer, together with Manholes, etc.
- (b) Approx. 1,600 lin. yd. of 6in., and 4in. dia. Soil and Surface Water Drains, together with Inspection Chambers, etc., for House Connections.
- (c) Extensions to existing Sewage Disposal Works, including Tanks, Filter Bed, Sludge Beds, and all ancillary work.

Plans may be inspected, and Specifications, Bills of Quantities and Forms of Tender may be obtained from the undersigned on the deposit of £5 5s., which will be returned on receipt of a bona-fide Tender not subsequently withdrawn.

Tenders, in plain sealed envelopes endorsed "Wetwang Sewerage," must reach the undersigned not later than WEDNESDAY, 10th January, 1962. Further information may be obtained from the Council's Consulting Engineer (D. H. MOORE, B.Sc., M.Inst.C.E.), 12 Valley Bridge Parade, Scarborough. The Council does not bind themselves to accept the lowest or any Tender.

G. MUMBY, Clerk of the Council.

Council Offices, West Garth, Driffield, Yorks.

20th November, 1961.

CONTRACTS

MONMOUTHSHIRE COUNTY COUNCIL.

ANNUAL CONTRACTS, 1962-63.

The above Council invites TENDERS for the SUPPLY of the FOLLOWING MATERIALS for use on Trunk and County Roads—

- (1) Limestone as Roadstone in the dry state.
- (2) Bituminous Macadam and Tarrad Macadam for Warm Laying.
- (3) Precast Chippings.
- (4) Hot Rolled Bituminous Asphalt.
- (5) Lean-mix Concrete.
- (6) Tar, Tar Compounds, Bitumen and Bituminous Emulsion for Surface Dressing.
- (7) Motor Lorry Hire.
- (8) Team Labour.
- (9) Traffic Signs.
- (10) Concrete Products.
- (11) Salt Glazed Stoneware Pipes.
- (12) Gully Gratings and Frames in Cast Iron.
- (13) Road Roller Hire.
- (14) White Line Plastic.
- (15) Tools and Road Implements.

Specifications and official Forms of Tender may be obtained on application to the undersigned.

Tenders, which should be on the forms provided, must reach the Clerk of the Council, County Hall, Newport, Mon., no later than 12 o'clock Noon on MONDAY, the 1st January, 1962.

No Tender will be received except in the official envelope supplied with the Forms of Tender, which must be sealed and bear the words "Tender for —", followed by the subject to which it relates, but shall not bear any name or mark indicating the sender.

The Council does not bind itself to accept the lowest or any Tender.

D. W. G. BARREN, A.M.I.C.E.,

County Engineer and Surveyor's Department,

"Stelvio",

Bassalep Road,

Newport, Mon.

November, 1961.

COUNTY COUNCIL OF DURHAM.

TENDERS invited for SUPPLY and DELIVERY of LATHES to CONSETT TECHNICAL COLLEGE.

Forms of Tender, returnable by 15th DECEMBER, 1961, and details from undersigned.

G. H. METCALFE,

Director of Education.

Shire Hall,

Durham,

20th November, 1961.

COUNTY COUNCIL OF DURHAM.

TENDERS invited for MAINTENANCE and SERVICING of the FOLLOWING—

- Refrigerators.
- Platform Weighing Machines.
- Bacon Slicing Machines.
- Mixing Machines.
- Potato Peeling Machines.
- Vegetable Slicing Machines.

In County Council establishments (including those in Borough of Stockton-on-Tees) during year commencing 1st February, 1962.

Further details and Forms of Tender, returnable by 15th DECEMBER 1961, from School Meals Service, 58 Hallgarth Street, Durham.

G. H. METCALFE,

Director of Education.

Shire Hall,

Durham,

20th November, 1961.

NORTHWICH URBAN DISTRICT COUNCIL.

PROPOSED RECONSTRUCTION OF CHESTER WAY (TIMBER LANE TO MEADOW STREET).

CONTRACT NO. 515.

TENDERS are invited for the RECONSTRUCTION of CHESTER WAY, including approx. 800 cu. yd. of Excavation, 1,600 sq. yd. of 3in. Ashes, 12in. Wet-Mix and 3in. Cold Asphalt with 3in. Precast Chippings rolled in.

A 30in. dia. Concrete Pipe Sewer is also to be laid, approx. 190 lin. yd. long and including four Concrete Manholes.

Conditions of Contract, Specification of Workmanship and Materials, Bills of Quantities and Form of Tender may be obtained from the Engineer and Surveyor, The Council House, Northwich. Drawings may be inspected at the above Office during normal office hours.

Tenders, in plain sealed envelopes endorsed "Chester Way Reconstruction—Contract No. 515," but bearing no mark or indication of the sender's name, should be delivered to the undersigned not later than Noon on MONDAY, 11th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

H. D. HOCKING,

Clerk of the Council.

The Council House,

Church Road,

Northwich.

MELFORD RURAL DISTRICT COUNCIL.

WATER MAINS EXTENSIONS—CONTRACT NO. 21.

FIXED-PRICE TENDERS are invited from responsible and experienced civil engineering contractors for the PROVISION and LAYING of about 2,680 yd. of 4in. ASBESTOS-CEMENT WATER MAIN from LOWER STANSTEAD to WINDMILL HILL, Long Melford, and about 210 yd. of 4in. dia. ASBESTOS-CEMENT WATER MAIN at GLEMSFORD, approx. four miles north of Sudbury, Suffolk.

Plans, Specification and Bills of Quantities may be seen at the Offices of the Council's Consulting Engineers, MESSRS. ELLIOTT AND BROWN, Stanley House, Pelham Road, Nottingham, and copies of the Specification, Bills of Quantities and Form of Tender may be obtained from them on deposit of £4 4s. (by cheque payable to the Melford Rural District Council) which will be refunded on receipt of a bona-fide Tender not afterwards withdrawn, and the return of all documents loaned to the contractor within seven days' notice informing him that a Tender has been accepted.

Tenders to be enclosed in a plain sealed envelope endorsed "Water Mains Extensions—Contract No. 21," to be delivered to the undersigned not later than FRIDAY, the 5th January, 1962.

The lowest or any Tender will not necessarily be accepted.

Note—The works will be subject to the final approval of the Ministry of Housing and Local Government after submission of an estimate based on a provisionally accepted Tender. Work will be commenced immediately approval is obtained.

J. A. SHAW,

Clerk of the Council.

Council Offices,

Chilton House,

Newton Road,

Sudbury, Suffolk.

22nd November, 1961.

CONTRACTS

LINDSEY COUNTY COUNCIL.

HIGHWAYS DEPARTMENT.

HORNCASTLE LOUTH ROAD, A.153—SCAMBLEYS DIVERSION.

SITE CLEARANCE, EARTHWORKS AND DRAINAGE CONTRACT, AND FENCING CONTRACT.

TENDERS are invited for the FOLLOWING CONTRACTS:

- (1) Site Clearance and Surface Water Drainage Works, approx. 14,600 cu. yd. of Earthworks. Total length of improvement: 3/4 mile.
- (2) Supply and Erection of:
 - (a) 1,400 yd. of Lincolnshire Fencing.
 - (b) 720 yd. of Pressure Creosoted Wooden Fencing.
 - (c) 78 yd. of Open Pale Fencing.
 - (d) 77 yd. of Post and Barbed Wire Fencing.
 - (e) New Gates, Repair and Set Back existing Gates.

Forms of Tender for either or both Contracts obtainable from the COUNTY SURVEYOR, County Offices, Lincoln.

Tenders to be submitted not later than the 18th DECEMBER, 1961.

LINDSEY COUNTY COUNCIL.

HIGHWAYS DEPARTMENT.

TENDERS are invited for the SUPPLY of the UNDERMENTIONED MATERIALS and HIRE of PLANT during the 12 months commencing 1st April, 1962:

- Supply of:
- (1) Coated Macadam.
 - (2) Broken Stone and Slag; Chippings, Gravel and Sand.
 - (3) Reformed Tar.
 - (4) Cold Bitumen Emulsion.
 - (5) Portland Cement.
 - (6) Concrete Kerbs, Channels and Flags.
 - (7) Stoneware, Concrete and Concrete Porous Pipes.
 - (8) Tools, Implements, etc.
 - (9) Hire of Plant.
 - (10) Steam and Diesel Rollers.
 - (11) Surface Dressing (application only).
- Forms of Tender, with Specifications and Conditions, may be obtained on receipt of a stamped addressed brief envelope. Applicants should state for which items they desire to tender.

Tenders to be delivered not later than 8th JANUARY, 1962, to COUNTY SURVEYOR, County Offices, Lincoln.

BOROUGH OF GOSPORT.

PRIVATE STREET WORKS—CONTRACT NO. 4.

TENDERS are invited for the MAKING-UP of EIGHT PRIVATE STREETS within the Borough, involving the Replacement of Broken Kerbs; the Laying of approx. 750 lin. yd. of 6in. dia. Pipes in Gully connections and Sewer Extensions; the Construction of 12 Manholes and 38 Road Gullies, and the Laying of 12,000 sq. yd. of Hot Rolled Asphalt Road Surfacing and 6,800 sq. yd. of Asphalt Footways, together with ancillary works.

Tender documents are obtainable from the Borough Engineer, The Hall, Trinity Green, Gosport, upon deposit of Two Guineas, returnable on receipt of a bona-fide Tender subsequently withdrawn, and the return of all documents.

Tender Forms should be submitted to me, in the small endorsed envelope provided, and should bear no mark indicating the sender. The priced Bills of Quantities should at the same time be submitted to me, in the large endorsed envelope provided, and should bear the name of the tenderer. Both envelopes must reach me by Office not later than First Post on THURSDAY, 28th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

EDWARD ADDENBROOKE,

Town Clerk.

BOROUGH OF HARROW.

SCHOOLS MAINTENANCE.

LIST OF PAINTING CONTRACTORS.

Applications are invited from painting contractors who wish to TENDER in the period commencing January, 1962, for WORKS in the FOLLOWING CATEGORIES:

- (a) Internal Decoration of Schools (primarily during Easter and Summer vacation periods).
- (b) External Decoration of Schools (May to September).

The Contracts will vary from £200-£10,000, and applicants must state the categories in which they are interested, and the total value of work which they can be held to complete under contract within the period stated.

The Council reserves the right to reject without reason any application in any category.

Applications, stating category of work (a) or (b), must be received by me not later than Noon on FRIDAY, 15th December, 1961. Applications should be accompanied by full particulars of similar works recently carried out. Details of labour resources must also be given.

Applicants are asked to confirm, in writing, that in tendering they will not follow the restrictive practices criticised by the Monopolies Commission.

Tenders will be invited from contractors whose names are placed on lists prepared from the applications received, such lists being reviewable at the discretion of the Council.

DAVID PRITCHARD,

Town Clerk.

WEST WILTS. WATER BOARD.

CONTRACT NO. 19.

SUPPLY OF PUMPING EQUIPMENT.

TENDERS are invited for the SUPPLY of ONE SUBMERSIBLE PUMPING UNIT capable of 233 gallons per minute at 160ft. head.

Copies of the Specification and Form of Tender may be obtained from the undersigned.

The Board do not bind themselves to accept the lowest or any Tender, which must be made on the official form and delivered not later than First Post on MONDAY, 18th December, 1961.

J. A. YOUNG, A.M.I.C.E., A.M.I.Mun.E.,

A.M.I.Struct.E., A.M.I.W.E.,

Engineer and Manager.

55 Boreham Road,

Warminster, Wilts.

CONTRACTS

FLINTSHIRE COUNTY COUNCIL.

COUNTY SURVEYOR'S DEPARTMENT.

TENDERS are invited for the SUPPLY of MATERIALS and SERVICES listed below during year ending March 31st, 1962—

- Tender No.
- (1) Rolled Asphalt (Hot Process).
 - (2) Heating and Planing.
 - (3) Tarmacadam, Bitumen Macadam and Asphalt.
 - (4) Tar and Bitumen for Surface Dressing.
 - (5) Mist Spray Process.
 - (6) Bitumen Emulsion.
 - (7) Surface Dressing—Specialised Form.
 - (8) Roadstone for Surface Dressing and Gravel.
 - (9) Building Stone.
 - (10) Granular Sub-base and Filling Material.
 - (11) Gravels for Surface Dressing and Gravel Purposes, Sand and Gravel Gravel for base and Filling Material.
 - (12) Concrete—Plant and Truck Mixed.
 - (13) Asphalts.
 - (14) Bricks, Cement and Earthenware Pipes.
 - (15) Precast Concrete Pipes, Kerbs and Units.
 - (16) Manhole Covers, Gully Covers and Frames.
 - (17) Fencing, Gates, Quicks and Grass.
 - (18) Plastic White Line.
 - (19) Reflecting Roadstuds.
 - (20) Traffic Signs and Bollards.
 - (21) Salt.
 - (22) Weedkiller.
 - (23) Surface Dressing Additives.
 - (24) Paint—Ready Mixed and Road Line.
 - (25) Coal and Solid Smokeless Fuel.
 - (26) Servicing Vehicles.
 - (27) Fuels, Oils, Industrial Gases, etc.
 - (28) Butane, etc.
 - (29) Vehicle and Plant Spares, including Electrical Spares and Batteries.
 - (30) Workshop and Garage Supplies, etc.
 - (31) Nuts, Bolts, Rivets, etc.
 - (32) Concrete Pipes, Channels and Flags.
 - (33) Hire of Road Construction Plant, including Haulage Vehicles.
 - (34) Timber.
 - (35) Iron and Steel.
 - (36) Tools, Hardware, Protective Clothing, etc.
 - (37) Shelters.
 - (38) Brushes.
 - (39) Drawing Office Equipment and Supplies.
 - (40) Testing and Analysis of Road Construction Materials.
- Forms of Tender may be obtained on application to the County Surveyor, E. W. W. RICHARDS, A.M.I.C.E., A.M.I.Struct.E., A.M.I.Mun.E., Liverpool Road, Flint, Flintshire.
- Applications should state clearly the items in the above list for which tender documents are required and Tenders should be delivered to the undersigned not later than 15th JANUARY, 1962.

W. HUGH JONES,

Clerk of the County Council.

METROPOLITAN BOROUGH OF LAMBETH.

THE LAMBETH BOROUGH COUNCIL.

TENDERS for the period of nine months from 1st April 1962, for the SUPPLY of the FOLLOWING MATERIALS and SERVICES—

- Ballast and Sand.
 - Stoneware Drainpipes, etc.
 - Iron Castings.
 - Shovels.
 - Tool Handles.
 - Tar-paulins, etc.
 - Oilman's Goods.
 - Brushes.
 - Sweepers' Brooms and Rotary Brooms.
 - Artificial Stone Paving.
 - Tarmacadam.
 - Cold Asphalt, Chippings, etc.
 - Repair and Reinstatement of Mastic Asphalts.
 - Removal and Disposal of Gully Slop.
 - Removal and Disposal of Sewer Slop.
 - Removal and Disposal of Rubbish.
 - Uniform Caps.
 - Uniform Clothing.
 - Dungaree Clothing.
- Specifications and Forms of Tender may be obtained from the Borough Engineer, Lambeth Town Hall, Brixton Hill, S.W.2, and envelopes should be marked "Annual Tenders" in bottom left-hand corner.
- Tenders must be returned to the undersigned in the official envelope supplied, not later than 12 Noon on WEDNESDAY, the 3rd January, 1962.

JOHN E. FISHER,

Town Clerk.

BOROUGH OF HESTON & ISLEWORTH.

INSTALLATION OF WASH HAND BASINS IN 94 HOUSES ON THE MARTINDALE ESTATE.

TENDERS are invited for this WORK.

Forms of Tender to be obtained from the Housing Officer and Manager, Housing Department, Heston Road, Heston, Middlesex.

Tenders, in sealed envelopes not indicating the name of the tenderer, endorsed "Installation of Wash Hand Basins—94 Houses," must reach me by 11.15 on 28th DECEMBER, 1961.

The Council is not bound to accept any Tender delivered to me not later than 12 Noon on 28th DECEMBER, 1961.

D. MATHIESON,

Town Clerk.

NORTHFLEET URBAN DISTRICT COUNCIL.

ROADS AND SEWERS.

TENDERS are invited for the FOLLOWING:

PRIVATE STREET WORKS—The Construction of

Streets totalling some 2,500 sq. yd. of Carriageway (Hardcore and Macadam) or alternatively, Concrete, with Concrete Footpaths and Surface Water Drainage.

SEWERS—The Laying of some 2,700 lin. yd. of 9in. dia. S.W. Sewers, with Manholes and Drain Connections.

Contract documents can be obtained from the Engineer and Surveyor at the address below on receipt of Two Guineas deposit which will be returned on receipt of a bona-fide Tender which is not subsequently withdrawn. The Tender, in a plain sealed envelope, must be delivered to the undersigned not later than 12 Noon on WEDNESDAY, 20th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

DREWERY F. BUNKALL,

Clerk of the Council.

Town Hall,

Northfleet, Kent.

November, 1961.

CONTRACTS

WILTSHIRE COUNTY COUNCIL.
COUNTY ROADS.

TENDERS invited for 12 months from 1st April, 1962, for the FOLLOWING:

Coated Roadstone—Tarmacadam (delivered to roadside).

Coated Roadstone—Bitumen Macadam (delivered to roadside).

Coated Roadstone—Bitumen Macadam; Mixed Aggregate (delivered to roadside).

Fine Cold Asphalt and Precoated Chippings (delivered to roadside).

Uncoated Roadstone and Chippings (delivered to roadside).

Coated and Uncoated Chippings (other than limestone) for Surface Dressing (delivered to roadside).

Gravel and Sand (delivered to roadside).

Tar, Bitumen and Bitumen Emulsions.

Mist Spraying.

Motor Spirit and Petroleum Products.

Concrete Products.

Conditions and Forms of Tender from County Surveyor, County Hall, Trowbridge.

Tenders, in a plain sealed envelope, must be delivered to the undersigned on or before 29th DECEMBER, 1961.

The County Council do not bind themselves to accept the lowest or any Tender.

R. P. HARRIES,
Clerk of the County Council.

CUMBERLAND COUNTY COUNCIL.
CLASS II ROAD, B.5298—NEW BRIDGE ROAD, WORKINGTON.

IMPROVEMENT AT NORTHSIDE ROAD AND NORTHSIDE RAILWAY BRIDGES.

FIXED-PRICED TENDERS are invited from contractors experienced in such works, for the ROAD AND BRIDGE IMPROVEMENT SCHEME at Northside, Workington. The Contract consists of the FOLLOWING:

- (1) The jacking-up by 2ft. 6in. of the Superstructure of Northside Road Bridge (over Trunk Road A.596) and the Raising of Abutment Levels.
- (2) The Demolition of the Steel and W.I. Superstructure of the existing adjacent Bridge which carries the Class II road over the railway, Raising Abutment Levels and Redecking by means of Precast Prestressed Beams.
- (3) Regrading existing Approaches over a length of approx. 275yd., and ancillary works.

The Contract documents may be obtained from the Office of the County Surveyor and Bridgeway, Clarendon Chambers, Carlisle, upon the payment of a deposit of £5, repayable upon the receipt of a bona-fide Tender not subsequently withdrawn.

To assist in the preparation of Tenders, a set of Drawings may also be obtained on loan from the County Surveyor on payment of a further deposit of £2, repayable upon the return of the Drawings in good condition.

Tenders should reach me, the undersigned, not later than 11 a.m. on FRIDAY, 22nd December, in a plain sealed envelope endorsed "Tender for New Bridge Road Improvement" but bearing no mark or name indicating the sender.

The Council do not bind themselves to accept the lowest or any Tender.

G. N. C. SWIFT,
Clerk of the County Council.

The Courts,
Carlisle,
November, 1961.

BOROUGH OF MANSFIELD.
DEBDALE HOUSING ESTATE.

CONTRACT 24/C—29 TRADITIONAL BUNGALOWS AND MEETING ROOM.

TENDERS are invited for the ERECTION OF 29 ONE-BEDROOM TRADITIONAL BUNGALOWS AND MEETING ROOM.

Drawings may be inspected, and Bills of Quantities, Forms of Tender, General Conditions of Contract and other relevant documents obtained from E. T. CROWE, B.Sc., A.M.I.C.E., Borough Engineer and Surveyor, Carr Bank, Mansfield, on payment of a deposit of Two Guineas (£2 2s.) made payable to the Town Council of Mansfield, which will be refunded on receipt of a bona-fide Tender not subsequently withdrawn, or the return of all loaned documents.

Tenders will only be considered if they are submitted in the envelope provided, which will be suitably marked and addressed. This must be sealed and delivered to the undersigned not later than 12 Noon on THURSDAY, 14th December, 1961.

The Corporation does not bind itself to accept the lowest or any Tender, and the provisional acceptance of a Tender will be subject to the approval of the Minister of Housing and Local Government.

S. W. R. CHRISTMAS,
Town Clerk.

Carr Bank,
Mansfield.

NESTON URBAN DISTRICT COUNCIL.
PRIVATE STREET WORKS.

FIXED-PRICE TENDERS are invited for MAKING-UP PART OF BENDEE AVENUE, Little Neston, under the Highways Act, 1959.

Form of Tender, Specification and Bills of Quantities may be obtained from, and the Drawings and Conditions of Contract inspected at, the Office of the Engineer/Surveyor, Town Hall, Neston, Wirral.

Tenders, in plain sealed envelopes endorsed "Bende Avenue," and bearing no mark or indication of the sender, must be received by the undersigned not later than 10 a.m. on FRIDAY, 15th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

F. H. D. HARTMAN,
Clerk of the Council.

Town Hall,
Neston, Wirral,
November, 1961.

FYLD WATER BOARD.
SLUDGE FREEZING PLANT—HODDER WORKS, SLAIDBURN, YORKS. W.R.

TENDERS are invited for the SUPPLY and DELIVERY of a 7,000-gallon M.S. HOPPER-MOTOWAN TANK and supporting Steelwork.

Specification and Tender documents obtainable from the ENGINEER, Fylde Water Board, Sefton Street, Liverpool.

Tenders must be received not later than 13th DECEMBER, 1961.

CONTRACTS

BOROUGH OF LUTON.

NEW BEDFORD ROAD (A.6) IMPROVEMENT.

TENDERS are invited for ROAD IMPROVEMENT works in NEW BEDFORD ROAD, Luton (from Fountains Road to the Borough Boundary approx. ¼ mile). The work includes Storm Water Drainage in 45in. dia. Pipes.

Tender documents from Borough Engineer, Town Hall, Luton, on payment of £2 2s. deposit returnable after receipt of bona-fide Tender not subsequently withdrawn. Cheques payable "Luton Corporation." Tenders to TOWN CLERK, Town Hall, Luton, by Noon on FRIDAY, 5th January, 1962.

BOROUGH OF MALDEN AND COOMBE.

PAVING WORKS.

Contractors desirous of TENDERING for the work of RE-LAYING existing and SUPPLYING new ARTIFICIAL STONE PAVING are invited to submit their names to JOHN APSE, A.M.I.C.E., Borough Engineer and Surveyor, Municipal Offices, New Malden, Surrey, when contract documents will be forwarded in due course.

HAROLD E. BARRETT,
Town Clerk.

Municipal Offices,
New Malden, Surrey.

RUNCORN URBAN DISTRICT COUNCIL.

CONSTRUCTION OF PICOW FARM ROAD (PART).

TENDERS are invited for the CONSTRUCTION of approx. 2,600 sq. yd. BITUMINOUS CARRIAGEWAY, 930 sq. yd. Concrete Paving, and ancillary works. Drawings may be inspected at, and Contract documents with Form of Tender may be obtained from, the Surveyor, Town Hall, Runcorn.

Tenders, enclosed in a plain sealed envelope endorsed "Picow Farm Road," to be delivered to the undersigned not later than 10 a.m. on MONDAY, 18th December.

The Council does not bind itself to accept the lowest or any Tender.

T. J. LEWIS,
Clerk of the Council.

Town Hall,
Runcorn,
22nd November, 1961.

RUISLIP-NORTHWOOD URBAN DISTRICT COUNCIL.

ANNUAL CONTRACTS, 1962/63.

TENDERS are invited for the SUPPLY of the FOLLOWING GOODS or SERVICES for the year commencing 1st April, 1962:

- (1) Fuel Oil.
- (2) Lubricating Oils and Greases.
- (3) Stoneware Pipes.
- (4) Washed Ballast and Sand.
- (5) Clean Washed Granite Chippings.
- (6) Paints and Distemper.
- (7) Castings.
- (8) Concrete Flags.
- (9) Concrete Kerb.
- (10) Tar/Bitumen Compound and Bituminous Emulsion.
- (11) Anti-Stripping Additive.
- (12) Hire of Towed Rollers.
- (13) Tarmacadam.
- (14) Highways Work—Carriageways.
- (15) Highways Work—Footpaths, Crossings, etc.
- (16) Ready Mixed Concrete.
- (17) Grass Cutting.

Tender Forms obtainable from the Engineer and Surveyor on receipt of large stamped and addressed envelope.

Tenders, in plain sealed envelopes, endorsed with the label supplied, to be delivered to the undersigned by 12 Noon on TUESDAY, 9th January, 1962.

The Council do not bind itself to accept the lowest or any Tender.

EDWARD S. SAYWELL,
Clerk of the Council.

Council Offices,
Northwood, Middx.

THE URBAN DISTRICT COUNCIL OF FELLING.

SUPPLY AND DELIVERY OF BUILDING MATERIALS.

TENDERS are invited for the SUPPLY and DELIVERY of the UNDERMENTIONED BUILDING MATERIALS and COMPONENTS required for the erection of two houses, Leam Lane Estate, Scheme 8; two houses, Pelaw, 21 bungalows, Oakwood, Leam Lane Estate; 20 bungalows, Longrigg, Leam Lane Estate; six bungalows, Nursery Lane, Felling; and 18 bungalows, Keir, Hardie Avenue, Ellen Wilkinson Estate, by Direct Labour.

General Building Materials.

Hardware.

Sanitary Goods.

Door Linings.

Ledged, Braced and Battened Doors.

Gates and Posts.

Stairs.

Cupboard Units.

Glazing Materials.

Particulars of the materials and components and the approximate quantities thereof required, together with copies of the Terms and Conditions of Contract and Form of Tender, may be obtained from the Surveyor of the Council, R. MORTON, Esq., A.R.I.C.S., Council Buildings, Felling, Gateshead, 10.

Tenders, enclosed in plain sealed envelopes, not bearing any name or mark by which the sender can be identified, but endorsed "Tender for Building Materials," must reach the undersigned not later than First Post on WEDNESDAY, 6th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

JOHN DONKIN,
Clerk of the Council.

Council Buildings,
Felling,
Gateshead, 10.

BULLINGTON RURAL DISTRICT COUNCIL.

DORCHESTER-ON-THAMES SEWAGE DISPOSAL SCHEME.

The Council are about to invite TENDERS for the ABOVE SCHEME, comprising the Construction of a Sewage Disposal Works to serve a population of approx. 2,250.

Contractors wishing to tender should send their names to the Council's Engineer and Surveyor, J. E. BUSFIELD, M.I.Mun.E., at the undermentioned address, by not later than FRIDAY, the 15th DECEMBER, 1961.

L. C. WORT,
Clerk to the Council.

76 Banbury Road,
Oxford.

November, 1961.

CONTRACTS

SOUTHAMPTON COUNTY BOROUGH COUNCIL.

TENDERS are invited for SUPPLY and CONSOLIDATION OF PERMEABLE FILLING (approx. 8,000 yd.) to stabilise cliff face and other preliminary site works at DIMORF ROAD, Pittern Park, Southampton.

Architects: MESSRS. RICHARD SHEPHERD, ROBSON AND PARTNERS.

Write for particulars and Bill of Quantities to BOROUGH ARCHITECT, Civic Centre, Southampton, by 7th DECEMBER, 1961.

Tenders returnable by 2nd JANUARY, 1962.

BOROUGH OF HARROW.

ANNUAL CONTRACTS, 1962-63.

TENDERS are invited for the SUPPLY and DELIVERY of MATERIALS and for the EXECUTION of WORKS as indicated below during the year ending 31st March, 1963.

- Schedule
- | No. | Description |
|-------|---|
| (1) | Igneous Rock Chippings. |
| (2) | Tarred Slag, Granite and Limestone. |
| (3) | Sand, Shingle, Gravel, Hoggins and Ashes. |
| (4) | Concrete Flags, Kerbs and Edging. |
| (5) | Tar, Tar Bitumen Mixture and Cut-back Bitumen applied by Pressure Sprayer. |
| (6) | Road Castings. |
| (7) | Concrete Pipes and Fittings. |
| (8) | Bitumen Macadam and Fine Cold Asphalt. |
| (9) | Petrol and Oils. |
| (10) | Bitumen Macadam and Cold Asphalt Supplied and Laid by Machine and Preparatory Works. |
| (11A) | Hot Rolled and Mastic Asphalt Supplied and Laid by Machine, including Preparatory Works and Reinstatement of Trenches. |
| (11B) | Reinstatement of Kerbing and Paving (Labour only). |
| (12) | Repair and Construction of Sewers. |
| (13) | Repair and Maintenance and Minor Improvements of Highways. |
| (14) | Forms of Tender are obtainable from Borough Engineer and Surveyor, 48 Uxbridge Road, Stanmore, Middlesex. Applicants should indicate Schedule Number for which forms required, and enclose a stamped addressed foolscap envelope. |

Completed Tenders must be returned to me by 10 a.m. on TUESDAY, 2nd January, 1962, in plain sealed envelopes, bearing no names or marks indicating the sender, and endorsed "Tender for Annual Contracts."

The Council does not bind itself to accept the lowest or any Tender.

DAVID FRITCHARD,
Town Clerk.

Council Offices,
Harrow Weald Lodge,
Uxbridge Road,
Harrow, Middlesex.

BOROUGH OF ELLESMERE PORT.

PROPOSED PUBLIC CONVENIENCES.

TENDERS are invited for the CONSTRUCTION of a PUBLIC CONVENIENCE BLOCK in MEADOW LANE, Ellesmere Port.

Contract documents obtainable from the Borough Architect, Queen Street, Ellesmere Port, on and after the 8th December, 1961.

Sealed Tenders, in the plain official envelope provided, must reach me by post by not later than 5 p.m. on WEDNESDAY, the 27th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

R. J. BERNIE,
Town Clerk.

Municipal Offices,
Ellesmere Port.

CITY OF MANCHESTER.

TENDERS invited for ELECTRICAL INSTALLATION to MILES PLATTING SECONDARY SCHOOL.

Specifications and Drawings from the CITY ARCHITECT, P.O. Box 458, Town Hall, Manchester, by 20th DECEMBER.

THE URBAN DISTRICT COUNCIL OF SEVENOAKS.

TENDERS FOR SUPPLIES.

The Urban District Council of Sevenoaks invite TENDERS for the UNDERMENTIONED SUPPLIES during the year ending 31st MARCH, 1963:

- Slag Tarmacadam and Slag Dust.
- Bituminous Macadam (with Crushed Rock or Slag Aggregate).
- Tarmacadam other than Slag Tarmacadam.
- Fine Cold Asphalt and Coarse Cold Asphalt.
- Refined Tar.
- Cement.
- Sand.
- Crushed and Natural Shingle for Surface Dressing.
- Granite Chippings.
- Granite Concrete Kerb (Hydraulically Pressed).
- Granite Concrete Paving Slabs (Hydraulically Pressed).
- Lorry Hire.
- Salt for Snow Clearing Purposes.

Forms of Tender may be obtained from the Engineer and Surveyor, Council Offices, Argyle Road, Sevenoaks, Kent.

Sealed Tenders, endorsed "Annual Tenders," are to be delivered to the undersigned not later than 12 Noon on MONDAY, 8th January, 1962.

The Council does not bind itself to accept the lowest or any Tender.

A. F. E. DAVIS,
Clerk of the Council.

Council Offices,
Argyle Road,
Sevenoaks, Kent.

November, 1961.

HARLOW URBAN DISTRICT COUNCIL.

KINGS HEAD FIELD, POTTER STREET.

CONSTRUCTION OF PADDLING POOL AND SITEWORKS.

TENDERS are invited for the CONSTRUCTION of a 6in. REINFORCED CONCRETE PADDLING POOL approx. 265 sq. yd. in area, together with the SUPPLY of FILTRATION and CHLORINATION PLANT and ancillary works including approx. 500 sq. yd. of Tarmacadam Paving and 445 sq. yd. of Gravelled Areas.

Documents may be obtained from A. W. R. WEBB, A.M.I.C.E., M.I.Mun.E., M.R.S.H., Engineer and Surveyor, Town Hall, Harlow, Essex, on payment of a deposit of £2 2s. which will be refunded on receipt of a bona-fide Tender.

Tenders, in a plain sealed envelope marked "Kings Head Field—Paddling Pool and Other Works," must be returned to the CLERK OF THE COUNCIL, Town Hall, Harlow, Essex, not later than Noon, MONDAY, 18th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

CONTRACTS

EAST SUFFOLK COUNTY COUNCIL.

TENDERS are invited for the SUPPLY of ROAD MATERIALS and other REQUISITES, as stated in the following schedule, between 1st April, 1962, and 31st March, 1963, viz.:

- (1) Bitumen and Bitumen Emulsion.
- (2) Ordinary and Rapid Hardening Portland Cement.
- (3) Haulage on an hourly basis by Mechanically Propelled Vehicles.
- (4) Kerbs, Channels and Quadrants.
- (5) Local Materials, i.e., Gravel, Flints, Shingle, Grit and Sand.
- (6) Concrete Pipes, Tubes and Junctions.
- (7) Concrete Fencing Posts.
- (8) Dry Granite and Slag.
- (9) Hire of Road Rollers.
- (10) Refined Tar and Tar Compounds for Surface Treatment.
- (11) Bituminous and Tarred Granite and Slag, and Asphalt.

Specification and Forms of Tender can be obtained on application to the COUNTY SURVEYOR, County Hall, Ipswich, and Tenders should be submitted on or before the 30th day of DECEMBER, 1961.

METROPOLITAN BOROUGH OF BATTERSEA.

ANNUAL CONTRACTS.

The COUNCIL invites TENDERS for the FOLLOWING for one year from 1st April, 1962:—
Precast Concrete Flags.

Forms of Tender containing full particulars may be obtained at the Town Hall, Lavender Hill, S.W.11, or by sending The Borough Engineer and Surveyor a stamped addressed envelope under cover, endorsed "Tender Form," and no Tender will be considered unless made on such form.

Tenders in separate envelope, sealed and marked on the outside "Tender for Precast Concrete Flags," must be delivered to me by Noon on FRIDAY, 12th January, 1962.

C. M. W. S. FREEMAN,
Town Clerk.

BOROUGH OF BIDEFORD.

STREET LIGHTING.

GROUP "A" LIGHTING ON PART OF A.386.

TENDERS are invited for the SUPPLY and ERECTION of 25 GROUP "A" LIGHTING POINTS on PART OF A.386.

Plan, Specification and Bills of Quantities may be obtained from H. J. DENNE, A.M.I.C.E., Borough Surveyor, Municipal Buildings, Bideford, upon payment of a deposit of One Guinea which will be refunded upon receipt of a bona-fide Tender and return of all documents. Conditions of Contract may be inspected at the Town Clerk's Office.

Tenders are to be delivered to the undersigned not later than Noon on SATURDAY, 9th December, 1961, in a plain sealed envelope endorsed "Quay Lighting," and bearing no mark to indicate the sender.

The Council does not bind itself to accept the lowest or any Tender.

L. B. GALLIFORD,
Town Clerk.

Municipal Buildings,
Bideford, Devon.

BOROUGH OF BRIDGWATER.

ANNUAL TENDERS, 1962/63.

The CORPORATION invites TENDERS for the SUPPLY of the FOLLOWING GOODS and MATERIALS from 1st April, 1962, to 31st March, 1963:

- (1) General Stores.
- (2) Cast-iron Goods.
- (3) Masons' and Bricklayers' Materials.
- (4) Water Stores and Fittings.
- (5) Road Surfacing Materials.
- (6) Motor Tyres and Tubes.
- (7) Bricklayers' Materials and Sanitary Ware.
- (8) Ironmongery.
- (9) Diesel Fuel, Paraffin and Petrol.

Further particulars and Forms of Tender may be obtained from the Borough Treasurer, Town Hall, Bridgwater.

Tenders must be submitted in plain sealed envelopes marked "Tender for Stores," but which must not bear any name or mark indicating the sender, and must be delivered to the undersigned not later than MONDAY, 22nd January, 1962.

The Corporation does not bind itself to accept the lowest or any Tender.

J. L. TURNER,
Town Clerk.

Town Hall,
Bridgwater.

23rd November, 1961.

BOROUGH OF MANSFIELD.

PRIVATE STREET WORKS.

TENDERS are invited for the MAKING-UP of the FOLLOWING PRIVATE STREETS:

- (1) Charnwood Grove—50 lin. yd.
- (2) Chester Street—64 lin. yd.
- (3) Fairholme Drive—130 lin. yd.

The work includes Providing and Laying New Kerbs, Flagging, Waterbound Macadam and 3in. Bituminous Surfacing.

Tender documents can be obtained from E. T. CROWE, B.Sc., A.M.I.C.E., Borough Engineer and Surveyor, Carr Bank, Mansfield, against a deposit of £2 2s. for each Contract, which will be returned upon receipt of bona-fide Tenders.

Tenders must be returned, in the envelope provided, to reach the undersigned not later than 12 Noon, MONDAY, 1st January, 1962.

S. W. R. CHRISTMAS,
Town Clerk.

Carr Bank,
Mansfield.

SUNBURY-ON-THAMES URBAN DISTRICT COUNCIL.

TUDOR ROAD EXTENSION, ASHFORD COMMON.

TENDERS are invited for the CONSTRUCTION of approx. 1,167 sq. yd. of CARRIAGEWAY, etc., part Bitumen Gravel Macadam, part Reinforced Concrete, Kerbing, Channelling, Drainage and ancillary works.

Drawings may be inspected at the office of the Engineer and Surveyor, from whom tender documents may be obtained.

Tenders must be returned to the undersigned in the envelope provided not later than 31st December, 1961.

T. L. WATTS,
Clerk of the Council.

Council Offices,
Green Street,
Sunbury-on-Thames,
Middlesex.

24th November, 1961.

CONTRACTS

COUNTY BOROUGH OF DARLINGTON.

FIRTH MOOR HOUSING ESTATE—STAGES 2 AND 3. LINGFIELD LANE HOUSING ESTATE—FINAL ROADWORKS.

TENDERS are invited for the PROVISION and LAYING BY MACHINE of 4in. consolidated thickness of BITUMINOUS MACADAM SURFACE to be laid in two courses on FIRTH MOOR and LINGFIELD LANE HOUSING ESTATES. The approx. area at Firth Moor is 12,000 sq. yd., and at Lingfield Lane, 8,000 sq. yd.

Tender documents may be obtained on application to the Borough Surveyor, Town Hall, Darlington, on payment of Two Guineas, returnable on receipt of a bona-fide Tender not subsequently withdrawn.

Tenders must be enclosed in a plain sealed envelope addressed to the Town Clerk, 11 Houndgate, Darlington, and endorsed "Tender for Final Roadworks—Firth Moor and Lingfield Lane Estates," and must be delivered at that address not later than 12 Noon on TUESDAY, 12th December, 1961.

C. N. S. NICHOLSON,
Town Clerk.

COUNTY BOROUGH OF HUDDERSFIELD.

EDUCATION COMMITTEE.

ERECTION OF NEW (6 F.E.) COUNTY SECONDARY SCHOOL, INCLUDING SWIMMING BATH AND CIVIC YOUTH CENTRE, ALMONDBURY.

Contractors are invited to submit a FIRM-PRICE ALL-TRADES TENDER for the ERECTION of the ABOVE.

Contractors wishing to Tender for this work should submit their names (accompanied by a deposit of £2 2s.) to the Borough Architect and Planning Officer, High Street Buildings, Huddersfield, not later than WEDNESDAY, the 6th December, 1961. Bills of Quantities will be forwarded to them on the 27th December, 1961, and tenders are returnable, in the envelope provided, to the Town Clerk not later than 10 a.m. on TUESDAY, the 30th January, 1962.

The Drawings and Conditions of Contract may be inspected at the office of the Borough Architect and Planning Officer.

The Corporation do not bind themselves to accept the lowest or any Tender.

HARRY BANN,
Town Clerk.

Town Hall, Huddersfield.

November, 1961.

BOROUGH OF WANSTEAD AND WOODFORD.

ANNUAL TENDERS.

TENDERS are invited for the FOLLOWING:

- (1) Tar Compounds (Hot Application).
- (2) Slag Tarmacadam.
- (3) Concrete Aggregate and Shingle.
- (4) Precast Granite Chippings.
- (5) Bitumen Macadam.
- (6) Coke.
- (7) Cold Asphalt.
- (8) Petrol, Derv and Fuel Oils.
- (9) Kerb, Precast Concrete and Reconstructed Granite.
- (10) Paving Slabs, Precast Concrete.
- (11) Reheating Mechanical Sweeper Brushes.
- (12) Electric Lamp.
- (13) Gully Cleansing.

Forms of Tender may be obtained from the BOROUGH ENGINEER AND SURVEYOR, Municipal Offices, Woodford, on receipt of a large stamped (6d.) addressed envelope.

Tenders to be returned by Noon on 5th JANUARY, 1962.

CITY OF NOTTINGHAM.

WATER DEPARTMENT.

NEWSTEAD BOOSTER STATION.

TENDERS are invited for the MANUFACTURE, SUPPLY, ERECTION and SETTING TO WORK of TWO CENTRIFUGAL PUMPS and ELECTRIC MOTORS, SWITCHGEAR and other appurtenant works at NEWSTEAD BOOSTER STATION, about 7½ miles north of Nottingham.

General Conditions of Contract, Specification, and Form of Tender may be obtained from MR. B. W. DAVIES, Engineer and General Manager, Water Department, Castle Boulevard, Nottingham, on payment of One Guinea, which will be returned in full on receipt of a bona-fide Tender not afterwards withdrawn, and the return of all documents.

Tenders enclosed in an envelope endorsed "Tender for Electrically Driven Pumping Plant—Newstead Booster Station," to be delivered to me at the Guildhall, Nottingham, not later than Noon on MONDAY, the 8th January, 1962.

T. J. OWEN,
Town Clerk.

The Guildhall,
Nottingham.

RAMSEY URBAN DISTRICT COUNCIL.

SCHOOL LANE HOUSING ESTATE—

18 TRADITIONAL DWELLINGS.

STATION ROAD HOUSING SITE—

46 TRADITIONAL DWELLINGS.

TO BUILDERS AND CONTRACTORS.

The Council invite TENDERS for the CONSTRUCTION of SIX HOUSES and 12 SELF-CONTAINED FLATS on their SCHOOL LANE SITE and 46 HOUSES on their STATION ROAD SITE, both in RAMSEY, Huntingdonshire.

Builders wishing to Tender should forward their application, together with a deposit of £3 3s. for each scheme (returnable on receipt of a bona-fide Tender) to the Council's Architects, MESSRS. PICK, EVERARD, KEAY AND GIMSON, 8 Millstone Lane, Leicester, when Bills of Quantities will be supplied. Remittances should be made payable to the Ramsey Urban District Council.

Tenders for this work must be delivered to the Council in the endorsed envelope provided not later than 10 a.m. on MONDAY, the 18th December, 1961.

Should both schemes be tendered for the contractor is to state whether he is prepared to execute one only if unsuccessful in the other or whether Tenders are made on the assumption that both if any will be awarded.

The successful contractor will be required to provide an approved guarantor for a sum not exceeding 10 per cent. of the contract figure for the due performance of the work.

The Council do not bind themselves to accept the lowest or any Tender.

A. GRIFFITHS,
Clerk of the Council.

Council Offices,
Bury Road,
Ramsey,
Huntingdonshire.

CONTRACTS

METROPOLITAN BOROUGH OF LEWISHAM.

TENDERS are invited for the SUPPLY of the FOLLOWING:—

- (a) One Refuse Vehicle, equipped for emptying 114 cu. yd. containers.
- (b) One Mechanical Shovel.

In each case offers are invited for taking new vehicles and plant in part exchange.

Particulars and forms of Tender obtainable from the BOROUGH ENGINEER, Lewisham Town Hall, Catford, S.E.6.

Closing date 12 Noon, TUESDAY, 19th December, 1961.

BOROUGH OF WALTHAMSTOW.

BOROUGH ARCHITECT'S DEPARTMENT.

BUILDING WORKS SECTION.

TENDERS are invited for the SUPPLY of the FOLLOWING MATERIALS for the year ending 31st March, 1963:—

- (1) Plumbers' Goods.
- (2) General Ironmongery.
- (3) Painters' Sundries.
- (4) Plastering and Sundry Building Materials.
- (5) Painters' Brushes.
- (6) Sheet Glass.
- (7) Cleft Chestnut Fencing.
- (8) Sand and Ballast.
- (9) Paint.
- (10) Salt Glazed Ware Pipes and Fittings.

General Conditions, Specifications and Forms of Tender may be obtained from the Borough Architect, Town Hall, Walthamstow, E.17.

Sealed Tenders, in the envelope provided, must be delivered to the undersigned not later than Noon on FRIDAY, 29th December, 1961.

The Council does not bind itself to accept the lowest or any Tender.

G. A. BLAKELEY,
Town Clerk.

Town Hall,
Walthamstow.

E.17.

BOROUGH OF REIGATE.

TENDERS are invited for SUPPLY CONTRACTS, year commencing 1st APRIL, 1962, viz.:

- (a) Providing/Laying (Barber-Greene Formula) Bituminised Macadam Surfacing.
- (b) Surface Dressing of Carriageways.
- (c) Cold Asphalt, Tar/Bitumen Macadam; Tar Bitumen Emulsions; Concrete Kerbs; Concrete Slabs; Art. Stone Paving Slabs and Flags.
- (d) Decorating Materials: (i) Departmental use, (ii) Council tenants' use.
- (e) Coal, Coke, Heating Oil.
- (f) Paraffin, Motor Spirit, Derv. and Gas Oil.
- (g) Engine and Lubricating Oils.
- (h) Electrical Fittings and Requisites.

Form of Tender, etc., from Borough Engineer.

Town Hall, Reigate.

Tenders to be received by the undersigned not later than FRIDAY, 29th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender and reserve to themselves the right to accept any Tender in whole or in part.

HEBER DAVIES,
Town Clerk.

Town Hall,
Reigate.

PADIHAM URBAN DISTRICT COUNCIL.

TENDERS FOR CONSTRUCTION OF ROAD AND SEWER.

TENDERS are invited for the CONSTRUCTION of COWLEY STREET, Padiham, and the LAYING of a SEWER.

Specification, etc., will be sent on application to the Surveyor, Town Hall, Padiham. Applications should be accompanied by a deposit of £1 1s., which will be refunded if a bona-fide Tender (not subsequently withdrawn) is submitted.

Tenders, in plain sealed envelopes bearing the words "Tender for Road and Sewer," but not bearing any name or mark indicating the sender, should be received by me by 20th DECEMBER, 1961.

W. VEVEER,
Clerk of the Council.

Town Hall,
Padiham.

23rd November, 1961.

MALVERN URBAN DISTRICT COUNCIL.

SPUN IRON WATER MAIN, MATHON ROAD, COLWALL.

TENDERS are invited for the LAYING of approx. 640 lin. yd. of 3in. Spun Iron WATER MAIN complete with fittings.

Drawings may be inspected and the Conditions of Contract, Specification and Bills of Quantities may be obtained from the Surveyor and Water Engineer, The Council House, Malvern, on payment of a deposit of £2 2s., returnable on receipt of a bona-fide Tender.

Sealed Tenders on the form and in the envelope provided should be returned to the undersigned not later than Noon on 8th DECEMBER, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

J. BULMAN,
Clerk of the Council.

The Council House,
Malvern.

ESHER URBAN DISTRICT COUNCIL.

NEW ROAD IMPROVEMENT, WEST MOLESEY.

CONTRACT NO. 327.

TENDERS are invited for the ABOVE WORKS which comprise the RECONSTRUCTION and WIDENING of approx. 300 lin. yd. of the existing CARRIAGEWAY including Kerbing, Channelling, Surfacing in Bitumen Macadam, Surface Water Drainage, the Construction of Tarmacadam Footpaths and Grass Verges together with various ancillary works.

Form of Tender, Specification and Bills of Quantities may be obtained from the Engineer and Surveyor, Department of Council Offices, Esher, upon payment of a deposit of £1 1s., which will be refunded on receipt of a bona-fide Tender, together with the return of all documents in good condition.

Tenders, in the prescribed form, enclosed in the envelope provided, endorsed "Contract No. 327" and bearing no name or mark indicating the sender, must be received by the undersigned not later than 5 p.m. on WEDNESDAY, 27th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

A. G. CHAMBERLIN,
Clerk of the Council.

Council Offices,
Esher, Surrey.

CONTRACTS

SURREY COUNTY COUNCIL.

HIGHWAYS AND BRIDGES DEPARTMENT.

TENDERS are invited for RESURFACING EWELL BY-PASS (A.24/A.240) with 2 1/2 in. Fine Cold Asphalt (approx. 1/2 mile) and with 1 1/2 in. Thick Hot Rolled Asphalt (approx. 1/2 mile) and ancillary works.
Documents from County Engineer, returnable by 10th DECEMBER, 1961, in plain sealed envelope endorsed "Tender for Resurfacing Eweill By-pass" to CLERK OF THE COUNCIL, County Hall, Kingston-upon-Thames.

COUNTY BOROUGH OF BOLTON.

TENDERS invited for reinforced concrete and auxiliary work in the CONVERSION of Two FILTER BASINS into FILTERED WATER STORAGE TANKS and comprising approx. 5,000 sq. yd. of R.C. roof and supporting columns.
Contract documents may be inspected free of charge and copies obtained on payment of £5 deposit, refundable on receipt of a bona-fide Tender, from WATERWORKS ENGINEER'S OFFICE, Town Hall, Bolton, on and after 4th December. Tenders to be returned in envelope provided by Noon, 22nd JANUARY, 1962.

COUNTY BOROUGH OF BURNLEY.

PROPOSED CONSTRUCTION OF ACCESS BRIDGE TO CLIFTON RECREATION GROUND.

TENDERS are invited for the CONSTRUCTION of a BRIDGE of 40ft. span off HOLME ROAD, Burnley. The work comprises the Erection of six Precast Prestressed Beams with Mass-concrete Infilling, Reinforced Concrete Upstands and Wrought-iron Railings.
Tender documents may be obtained from the Borough Engineer and Surveyor, 22/24 Nicholas Street, Burnley, on payment of a deposit of £2 which will be refunded on receipt of a bona-fide Tender. Tenders are to be returned to reach the undersigned not later than 10 a.m. on 11th DECEMBER, 1961.
The Council does not bind itself to accept the lowest or any Tender.

C. V. THORNEY.

Town Clerk.

BOROUGH OF CHELMSFORD.

SUPPLY AND ERECTION OF FENCING AT BEECHLEA ESTATE.

TENDERS are invited for the SUPPLY and ERECTION of approx. 300 lin. yd. of CLOSE-BOARDED FENCING and 30 lin. yd. of POST and CHAIN FENCING to enclose a children's play space at Beechlea Estate.
Copies of the Conditions of Contract, Forms of Tender, Specification and Bills of Quantities may be obtained from the Borough Engineer and Surveyor, Municipal Offices, Cow Lane, Chelmsford, on payment of a deposit of One Guinea which will be refunded on receipt of a bona-fide Tender not subsequently withdrawn, and the return of all documents.
Tenders, in the envelopes provided, must be delivered to the undersigned not later than Noon on WEDNESDAY, 20th December, 1961.

B. A. FRANCIS.

Town Clerk.

BOROUGH OF CHELMSFORD.

NEW LIVESTOCK MARKET—VICTORIA ROAD, CHELMSFORD.

TUBULAR PENNAGE PHASE 3 DEVELOPMENT.

TENDERS are invited from specialist firms to act as Nominated Suppliers, on a Fixed-price Basis, for the DESIGN and SUPPLY of TUBULAR STEEL CATTLE PENS, Stalls, Fencing and Gates.
Tender documents and Drawings may be obtained from the Borough Engineer, Municipal Offices, Cow Lane, Chelmsford, on payment of a deposit of Two Guineas which will be refunded on receipt of a bona-fide Tender not subsequently withdrawn, and the return of all documents.
The lowest or any Tender will not necessarily be accepted.
Tenders must be received by the undersigned not later than THURSDAY, 21st December, 1961.

B. A. FRANCIS.

Town Clerk.

CHELMSFORD BOROUGH COUNCIL.

AS AGENTS FOR CHELMSFORD BOROUGH AND RURAL DISTRICT JOINT SEWERAGE COMMITTEE.

The above Council invite TENDERS for the SUPPLY of approx. 12,600 cu. yd. of BACTERIA BED MEDIA complying with B.S. 1948.
Full details may be obtained, upon written application, from the Surveyor to the Council, E. P. ALLEN, Municipal Offices, Cow Lane, Chelmsford, Essex.
Tenders for the above shall be delivered, in the endorsed envelopes provided, not later than 12 Noon on THURSDAY, 21st December, 1961.
The Committee do not bind themselves to accept the lowest or any Tender.

B. A. FRANCIS.

Town Clerk.

CITY OF MANCHESTER.

TENDERS invited for the ERECTION of SHACK-LIFE GREEN SECONDARY SCHOOL, MOSTON.
Bill of Quantities from the CITY ARCHITECT, P.O. Box 488, Town Hall.
Tenders returnable 4th JANUARY, 1962.

DARLSTON URBAN DISTRICT COUNCIL.

FIXED-PRICE TENDERS are invited from contractors familiar with this type of work, for the CONSTRUCTION of TWO FOOTBALL PITCHES on BENTLEY ESTATE, Darlston.
Tender documents may be obtained from the Engineer and Surveyor, Victoria Park, Darlston, on receipt of a deposit of £2 2s. which will be refunded on receipt of a bona-fide Tender not subsequently withdrawn.
Tenders, enclosed in the envelopes provided, but bearing no indication of the sender, are to be delivered to the undersigned not later than First Post on 8th JANUARY, 1962.
The Council do not bind themselves to accept the lowest or any Tender.

G. R. ROWLANDS.

Clerk of the Council.

Town Hall, Darlston, South Staffordshire.

CONTRACTS

BOROUGH OF FAVERSHAM.

SECONDARY SITEWORKS—UPPER BRENTS—PHASE 1.

TENDERS are invited for the ABOVE WORK, comprising approx. 850 sq. yd. of In-situ Granolithic Paving; 90 sq. yd. of Concrete Carriageway and 480 sq. yd. of Grass Forecourt, together with incidental works.

Form of Tender, Specification, Bill of Quantities and further details may be obtained from the Borough Engineer and Surveyor, Municipal Offices, Faversham, Kent.

Tenders to be received by Noon on MONDAY, 18th December, 1961.

F. G. BISHOP.

Town Clerk.

Municipal Offices, Faversham, Kent.

24th November, 1961.

BOROUGH OF WATFORD.

MAINTENANCE OF CORPORATION HOUSES.

TENDERS are invited for the REPAIR and DECORATION OF HOUSES in the Corporation's Estates for the financial year 1962/63.
Applications for documents must be made to F. C. SAGE, Borough Engineer and Surveyor, Town Hall, Watford, not later than 2 p.m. on TUESDAY, 12th December, 1961.

Contract documents will be forwarded as soon as possible after that date, and tenders will then be informed of the latest date for the receipt of Tenders.

GORDON H. HALL.

Town Clerk.

Town Hall, Watford.

BOROUGH OF DROITWICH.

UNION LANE IMPROVEMENT.

The DROITWICH TOWN COUNCIL invite TENDERS for the CONSTRUCTION of NEW CARRIAGEWAY and Footpaths in connection with this Scheme.

The works consist of approx. 2,100 super. yd. of Carriageway, with Footpaths, Earth Removal, and appurtenant works.

Contractors desirous of tendering should submit their names to the Borough Engineer and Surveyor, Town Hall, Droitwich, not later than MONDAY, 11th December, 1961, together with a deposit of Two Guineas, which sum will be refunded upon the receipt of a bona-fide Tender and the return of all documents. Bills of Quantities and Form of Tender, will be forwarded to applicants shortly after 11th December.

The Council do not bind themselves to accept the lowest or any Tender.

S. G. FOSTER.

Town Clerk.

Town Hall, Droitwich.

24th November, 1961.

CITY OF OXFORD.

NORTH OXFORD RELIEF SEWER.

FIXED-PRICE TENDERS are invited for the CONSTRUCTION of a FOUL RELIEF SEWER in NORTH OXFORD. The work includes the following:—

- 1679 lin. yd. of 12 in. dia. 18 in. and 24 in. dia. Concrete Pipe Sewer.
- 133 lin. yd. of 15 in. dia. Spun-Iron Pipe Sewer.
- 208 lin. yd. of 9 in. dia. Glazed Stoneware Pipe Sewer.
- 27 Precast Concrete Manholes.
- 13 Brick Manholes.

Experienced contractors may obtain copies of the contract documents from the City Engineer, Town Hall, Oxford.

Tenders are returnable in accordance with detailed instructions contained in the documents, not later than 12 Noon on 4th JANUARY, 1962.

HARRY PLOWMAN.

Town Clerk.

Town Hall, Oxford.

CITY OF EXETER.

COUNTSESS WEAR SEWAGE WORKS EXTENSION—CONTRACT NO. 2—STEEL SHEET PILING, ETC.

The CITY COUNCIL invite FIXED-PRICE TENDERS for the ABOVE WORKS, comprising the Driving of approx. 46,000 sq. ft. of Steel Sheet Piles, the Laying of approx. 640 lin. yd. of 24 in. nominal dia. Steel Tubes, approx. 640 lin. yd. of 4 in. dia. C.I. Water Main, and ancillary works.

Plans and General Conditions of Contract may be seen, and Form of Tender, Specification and Bill of Quantities obtained, at the Office of the undersigned on payment of Two Guineas which will be refunded on receipt of a bona-fide Tender.
Tenders, endorsed "Steel Sheet Piling, etc.—Access Road," must reach the undersigned not later than 10 a.m. on TUESDAY, 2nd January, 1962, in an envelope to be provided, which shall not bear any name or mark indicating the sender.

Members of the Council are not to be personally canvassed by, or on behalf of, persons tendering.

The Council do not bind themselves to accept the lowest or any Tender.

JOHN BRIERLEY.

City Engineer and Surveyor.

Municipal Offices, 7 Southernhay West, Exeter.

21st November, 1961.

WIRRAL URBAN DISTRICT COUNCIL.

ACRE LANE IMPROVEMENT.

FIXED-PRICE TENDERS are invited for the WIDENING and RECONSTRUCTION of the ABOVE ROAD, comprising approx. 3,774 sq. yd. of Hot Dense Tar Surfacing, Carriageway Kerbing, Paved Macadam, Footpaths, Drainage, and other ancillary work.

The Specification, Bill of Quantities, Form of Tender may be obtained on application to the Engineer and Surveyor, Council Offices, Heswall, at which Office the Conditions of Contract and Contract Drawing may be inspected.

Tenders, in a plain sealed envelope endorsed "Acre Lane Improvement," must be delivered to the undersigned not later than 12 Noon, FRIDAY, the 8th December, 1961.

The Council does not bind itself to accept the lowest or any Tender received.

W. F. ROBERTS.

Clerk of the Council.

Council Offices, Heswall, Wirral.

21st November, 1961.

CONTRACTS

COUNTY BOROUGH OF SUNDERLAND.

TENDERS are invited for SITE PREPARATION WORKS, comprising approx. 2,000 sq. yd. of 6 in. and 8 in. Reinforced Concrete Road and Ancillary Drainage Works.

Tender documents obtainable from Borough Engineer, Athenaeum Buildings, 27 Fawcett Street, Sunderland, on payment of £2 2s., refundable on receipt of a bona-fide Tender. Cheques payable to Sunderland Corporation.

Sealed Tenders, endorsed "Tender for Site Preparation Works, The Parade Redevelopment Area," must be received by me not later than 18th DECEMBER, 1961.

G. S. MCINTIRE.

Town Clerk.

COUNTY BOROUGH OF SUNDERLAND.

TENDERS are invited for SITE PREPARATION WORKS, comprising approx. 3,200 sq. yd. of 6 in. Reinforced Concrete Carriageway and Ancillary Drainage Works.

Tender documents obtainable from Borough Engineer, Athenaeum Buildings, 27 Fawcett Street, Sunderland, on payment of £2 2s., refundable on receipt of a bona-fide Tender. Cheques payable to Sunderland Corporation.

Sealed Tenders, endorsed "Tender for Site Preparation Works—Coronation Street Redevelopment Area," must be received by me not later than 18th DECEMBER, 1961.

G. S. MCINTIRE.

Town Clerk.

COUNTY BOROUGH OF WOLVERHAMPTON.

TENDERS FOR MATERIALS AND SURFACE DRESSING.

TENDERS are invited for the SUPPLY of the FOLLOWING ITEMS for the financial year ending 31st March, 1963:—

- Iron Castings for Gully Gratings, Manhole Covers, etc.
- Tarmacadam.
- Bitumen Macadam.
- Asphalt—B.S. 594.
- Cold Asphalt.
- Mastic Asphalt.
- Natural Rock Asphalt (Reinstatements).
- Bituminous Compounds.
- Concrete Flags.
- Concrete Kerbs.
- Gravel Aggregates.
- Stoneware Pipes.
- Bricks (Hard Common, Brindled and Engineering Bricks).
- Portland Cement.
- Sand.
- Cleft Chestnut Fencing.
- Ready Mixed Concrete.
- Surface Dressing (Footways and Carriageways).

Applications for Forms of Tender and Specifications must be made to the Borough Engineer, Town Hall, Wolverhampton.

Intending contractors must state for which class of material they require Tender Forms, and quote appropriate serial number.

Tenders to be sent in a plain sealed envelope, bearing the words "Tender(s) for —", but no name or mark indicating the sender, addressed to the undersigned, and to be received not later than MONDAY, 8th January, 1962.

R. J. MEDDINGS.

Town Clerk.

Town Hall, Wolverhampton.

CITY OF MANCHESTER.

TENDERS invited for the SUPPLY and FIXING of METAL ROOF CHECKING to WORKSHOP BLOCK and GYMNASIUM at the CENTRAL TECHNICAL COLLEGE.

Bill of Quantities from the CITY ARCHITECT, P.O. Box 488, Town Hall.

Tenders returnable by 13th DECEMBER.

BEDWELLY URBAN DISTRICT COUNCIL.

CONSTRUCTION OF NEW FOOTPATH AT DUFFRYN TERRACE, NEW TREDEGAR.

FIXED-PRICE TENDERS are invited for the CONSTRUCTION of approx. 90 lin. yd. of FOOTWAY, consisting of Reinforced Concrete Slabs supported on Brick Piers, and all ancillary work.

Copies of the Specification, Bill of Quantities and Form of Tender may be obtained from the Engineer and Surveyor, Municipal Offices, Aberbargoed, Glam., on payment of £2 2s. deposit which will be refunded on receipt of a bona-fide Tender which is not subsequently withdrawn.

Drawings and General Conditions of Contract may be inspected at the Office of the Engineer and Surveyor during normal office hours.

Tenders, in plain sealed envelopes unforsad "Reinforced Concrete Footpath," must be delivered to the undersigned not later than 12 Noon on MONDAY, the 18th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

D. HILTON LEWIS.

Clerk of the Council.

Municipal Offices, Aberbargoed, Glam.

Bucks. WATER BOARD.

Applications are invited from suppliers of the FOLLOWING CHEMICALS required for the treatment of public water supplies, who desire to be placed on the Board's SELECTED LIST OF TENDERERS:—

- Hydrated Lime.
- Quicklime.
- Pure Dried Vacuum Salt.
- Chlorine.
- Copperas.

Please apply, in writing, to the undersigned.

R. POWNALL.

Engineer and Manager.

Byron Road, Aylesbury, Bucks.

24th November 1961.

BUCKS. WATER BOARD.

Applications are invited from manufacturers of the FOLLOWING TYPES OF CLOTHING for inclusion on the Board's SELECTED LIST OF TENDERERS:—

- Waterproof Clothing.
- Overall Protective Clothing.
- Uniforms.

Please apply, in writing, to the undersigned.

R. POWNALL.

Engineer and Manager.

Byron Road, Aylesbury, Bucks.

24th November 1961.

CONTRACTS

CAMBRIDGESHIRE COUNTY COUNCIL.

(RE-ADVERTISEMENT.)

LONDON-NORWICH TRUNK ROAD, A.11.

IMPROVEMENT AT JUNCTION WITH ROUTE A.505.

CONTRACT C.6117.

TENDERS are invited for the CONSTRUCTION of approx. 11,000 sq. yd. of NEW ROAD and WIDENING of EXISTING ROAD, comprising approx. 5,000 cu. yd. of Fill, 2,000 lin. yd. Kerbing, Asphalt Base, Base Course and Wearing Course, Drainage, and ancillary works.

Documents in respect of the work may be obtained from the County Surveyor, R. LACEY, M.I.C.E., at the address given below.

Tenders, in the official envelope, must reach the undersigned not later than 12 Noon, MONDAY, 18th December, 1961.

CHARLES PHYTHIAN,
Clerk of the Council.

Shire Hall,
Castle Hill,
Cambridge.

COUNTY BOROUGH OF SOUTHAMPTON.

CONTRACT S.134—

BURSLEDON ROAD-HINKLER ROAD JUNCTION.

SOUTHAMPTON COUNTY BOROUGH COUNCIL invites TENDERS for the CONSTRUCTION of a SHORT SECTION OF DUAL CARRIAGEWAY at this junction.

The work includes Providing 600 lin. yd. Concrete Kerb, Channel, and 1,200 sq. yd. of Reinforced Concrete Carriageway Base and appropriate appurtenant works.

Applications, by 18th DECEMBER, 1961, to the BOROUGH ENGINEER AND SURVEYOR, Civic Centre, Southampton, for documents, with details of closing date for submission of Tenders.

The Council is not bound to accept the lowest or any Tender.

COUNTY BOROUGH OF BOURNEMOUTH.

BOROUGH ENGINEER'S DEPARTMENT.

TENDERS FOR TIPPING LORRIES.

TENDERS are invited for the SUPPLY of FOUR 2-TON and FOUR 3-TON TIPPING LORRIES, Eight 2-3-ton Bedford Lorries to be taken in part exchange. Tender Forms and Specifications obtainable from the Borough Engineer, Town Hall, Bournemouth, returnable to me by the 4th JANUARY 1962.

A. LINDSAY CLEGG,
Town Clerk.

BOROUGH OF EASTLEIGH.

24 BED-SITTING ROOM OLD PEOPLE'S HOSTEL, WITH COMMUNAL ROOMS AND WARDEN'S FLAT, VELMORE HOUSING ESTATE—STAGE XII.

Bills of Quantities for the ABOVE PROPOSED CONTRACT will be available during the first week of January, 1962.

The Corporation invite applications from contractors who will wish to TENDER for this Contract; these applications should be made to E. J. TAPLEY, M.I.Mun.E., Borough Engineer and Surveyor, Town Hall, Eastleigh, and be accompanied by a cheque for Two Guineas, which sum will be refunded on receipt of a bona-fide Tender not subsequently withdrawn, together with the return of all documents supplied.

Applications should be made without delay. Tenders are to be delivered to the Office of the undersigned at or before Noon on FRIDAY, the 2nd February, 1962.

The Council do not bind themselves to accept the lowest or any Tender.

ROLAND J. RODDIS,
Town Clerk.

Town Hall,
Eastleigh, Hants.
22nd November, 1961.

CHISLEHURST AND SIDCUP URBAN DISTRICT COUNCIL.

ERECTION OF SPORTS PAVILION AND PUBLIC CONVENIENCES, WITH CARETAKER'S FLAT—HOBLINGWELL WOOD, ST. PAUL'S CRAY, KENT.

Contractors wishing to TENDER should apply within 21 days to ENGINEER AND SURVEYOR, Manor House, Sidcup, Kent, enclosing £2 2s., refundable on receipt of a bona-fide Tender not subsequently withdrawn.

Tender documents will be dispatched in January.

BRIDGE-BLEAN RURAL DISTRICT COUNCIL.

BLEAN SEWERAGE—CONTRACT NO. 2.

GILES LANE AND CUTBALLS FARM AND AMERY COURT EXTENSIONS.

TENDERS are invited for the WORK and MATERIALS REQUIRED in the CONSTRUCTION of approx. 1,600 yd. of 6in. SEWERS, House Connections thereto and Conversions, 4in. Rising Main, One Ejector Station and other works incidental thereto, in the Parish of BLEAN, in the Bridge-Blean Rural District in the County of Kent.

Copies of the Specification and Drawings may be seen by intending contractors at the Council Offices, Old Dover Road, Canterbury, Kent, or at the Offices of the Engineers, MESSRS. A. P. I. COTTERELL AND SON, at 54 Victoria Street, Westminster, London, S.W.1, on or after Monday, the 4th December, during usual office hours. A copy of the Specification, Bills of Quantities, Form of Tender and General Plan will be forwarded by the Engineers to intending contractors on payment by them of the sum of Three Guineas which will be returned on receipt of a bona-fide Tender and all other documents supplied.

Tenders, in plain sealed envelopes, on the forms provided, must be delivered, accompanied by the priced Bills of Quantities (in separate sealed packets), to the undersigned, and endorsed "Blean Sewerage—Contract No. 2," not later than 10 a.m. on MONDAY, the 8th January, 1962.

The Specification and General Plan are to be returned direct to the Engineers at the same time as the Tender is sent in.

Contractors will be required to provide securities for the performance of the Contract.

The Council do not undertake to accept the lowest or any Tender.

I. F. SOILLEUX,
Clerk of the Council.

Council Offices,
Old Dover Road,
Canterbury, Kent.
24th November, 1961.

CONTRACTS

COUNTY BOROUGH OF GATESHEAD.

BRIGHTON ROAD RELIEF SEWER.

TENDERS are invited from experienced contractors for the LAYING of a SEWER at BRIGHTON ROAD, Gateshead.

The work consists of the Laying of approx. 120 lin. yd. of 15in. to 21in. dia. Concrete Pipes at depths averaging 7ft., together with appropriate Manholes.

Details and Form of Tender are obtainable from the Borough Surveyor, Municipal Buildings, Swinburne Street, Gateshead, 8, on payment of a deposit of £2 by cheque made payable to the Borough Treasurer, which will be returned on receipt of a bona-fide Tender and the return of all documents and drawings supplied.

Tenders should be returned to the undersigned not later than 12 Noon on 15th DECEMBER, 1961.

C. D. JACKSON,
Town Clerk.

Town Hall,
Gateshead, 8,
November, 1961.

BOROUGH OF BOSTON.

MECHANICAL SWEEPER-COLLECTOR.

TENDERS are invited for the SUPPLY of a BEDFORD LACRE SWEEPER-COLLECTOR.

Further details may be obtained from the Borough Surveyor, Municipal Buildings, Boston, Lincs. Tenders, in plain sealed envelopes endorsed "Road Sweeper," must be received by the undersigned not later than the 12th DECEMBER, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

C. L. HOFFROCK GRIFFITHS,
Town Clerk.

Municipal Buildings,
Boston, Lincs.

BOROUGH OF ILFORD.

TO CONTRACTORS, MERCHANTS, IRONMONGERS AND OTHERS.

The CORPORATION invites TENDERS for the FOLLOWING for a period of 12 months ending 31st March, 1963, viz.:

- (1) Precast Concrete Kerb, Quadrants and Edging.
- (2) Tarmacadam.
- (3) Portland and High Alumina Cement.
- (4) Blue Lias Lime and Plaster.
- (5) Concrete Aggregates and Building Sands.
- (6) Coal and Coke.
- (7) Electric Cable.
- (8) Paints.
- (9) Brushes and Brushes.
- (10) Engineer's Sundries and Tools.
- (11) Iron, Nails, Screws, etc.
- (12) Drysaltery, Soaps and Sundries.
- (13) Bitumen Macadam.
- (14) Street Nameplates and Traffic Signs.
- (15) Window Cleaning.
- (16) G.L.S. Electric Lamps.
- (17) Uniforms and Protective Clothing.
- (18) Petrol, Derv, Furnace Oil, etc.

Forms of Tender (Number of form and materials to be quoted) and full particulars may be obtained on application to the Borough Engineer and Surveyor, Town Hall, Ilford, at whose Office the General Conditions relating to Annual Contracts may be seen during the normal office hours.

Sealed Tenders, endorsed "Tenders for —," as the case may be, to be delivered to the TOWN CLERK, Town Hall, Ilford, Essex, on or before 4 p.m. on MONDAY, 1st January, 1962.

The Corporation does not bind itself to accept the lowest or any Tender, and reserves the right to accept part of any Tender.

Borough Engineer's Department,
Town Hall,
Ilford.

December, 1961.

BOROUGH OF ILFORD.

MAINTENANCE OF JOINTS IN CONCRETE ROADS.

1961/62.

The CORPORATION invites TENDERS for the MAINTENANCE of 6,500 lin yd. of JOINTS in Concrete Roads, involving the Cutting Out, Priming and Resealing of Joints and Cracks, by machine.

Conditions of Contract and the Schedule of Works may be inspected upon application to the Borough Engineer, Town Hall, Ilford, from whom the Special Conditions, Specification, Bill of Quantities and Form of Tender may be obtained on payment of a deposit of Two Guineas which is returnable upon receipt of a bona-fide Tender not subsequently withdrawn.

Sealed Tenders, in an envelope (which will be provided) bearing no indication of the tenderer and endorsed "Tender for Maintenance of JOINTS in Concrete Roads," must be delivered to the TOWN CLERK, Town Hall, Ilford, not later than 4 p.m. on the 19th DECEMBER, 1961.

The Corporation does not bind itself to accept the lowest or any Tender.

CORPORATION OF LONDON.

TENDERS are to be invited for the WIDENING of ALDERSGATE STREET, E.C.1.

Civil Engineering contractors desiring to Quote, on a Fixed-price Basis, should communicate with the undersigned by WEDNESDAY, 6th December, 1961.

F. J. FORTY, B.Sc., M.I.C.E.,
City Engineer.

Guildhall, E.C.2.
London, E.C.2.

HUCKNALL URBAN DISTRICT COUNCIL.

SPRING STREET IMPROVEMENT.

TENDERS are invited for the RECONSTRUCTION of the JUNCTION of SPRING STREET (C.3214) and ANGLELEY ROAD (A.1).

The works consist of Kerbing, Tarmacadam Footpaths, and Reconstruction of Part of the Carriage-way, including Macadam Surfacing, together with Ancillary Drainage and other works.

The Conditions of Contract, Specification and Bills of Quantities, etc., may be obtained from the Engineer and Surveyor, Council Offices, Watnall Road, Hucknall, Nottingham, on payment of £2 2s. deposit which will be returned on receipt of a bona-fide Tender and the return of documents.

Tenders, in plain sealed envelopes which will be supplied, suitably endorsed, must be received by the undersigned not later than 5 p.m. on MONDAY, the 8th January, 1962.

The Council does not bind itself to accept the lowest or any Tender.

H. SHARP,
Clerk of the Council.

Council Offices,
Hucknall, Notts.
24th November, 1961.

CONTRACTS

NORTHAMPTON COUNTY BOROUGH EDUCATION COMMITTEE.

NORTHGATE SPECIAL SCHOOL—
QUEEN'S PARK PARADE, KINGSTHORPE,
NORTHAMPTON.

Contractors desirous of submitting a Fixed-price TENDER for the ERECTION of the ABOVE NEW SCHOOL are invited to apply to the undersigned not later than THURSDAY, 14th December, 1961. No deposit is to be enclosed in this instance. From the names received, a list of contractors will be selected who will be invited by the Committee at a later date to tender for the work on a normal Bill of Quantities—these will be sent out about mid-January, 1962, and will be returnable three weeks later.

The works consist of the Erection of a complete new Single-storey School with a total floor area of about 11,000 sq. ft. of traditional Brick Construction, together with Site works, Roads about 1½ acres of Playing Fields, Fences, etc. In submitting applications for consideration, contractors should state their total labour force and what part of it would be available for this Contract.

The Education Committee do not bind themselves to accept the lowest or any Tender, or to pay any costs incurred by persons tendering.

H. A. SKERRETT,
Chief Education Officer.

Borough Education Office,
Springfield,
Cliftonville,
Northampton.

CITY AND COUNTY OF BRISTOL EDUCATION COMMITTEE.

TO BUILDING CONTRACTORS.

TENDERS are invited for ERECTION of YOUTH CENTRE at QUEEN'S ROAD, WITHERWOOD, Bristol. Approx. floor area 7,400 sq. ft., includes Structural Reinforced Concrete Work.

Contractors willing to submit Tender based on Bills of Quantities to be issued about 3rd January, 1962, apply to the CHIEF EDUCATION OFFICER, Council House, Bristol, 1, by 15th DECEMBER, 1961. Work to start on the site in March, 1962, and be completed by November, 1962.

CATERHAM AND WARLENGHAM URBAN DISTRICT COUNCIL.

RECONSTRUCTION WORKS—
HARESTONE VALLEY ROAD, CATERHAM.

TENDERS are invited for the RE-LAYING of 258 yd. of KERB and the RESURFACING of CARRIAGEWAY and Footpaths with BITUMEN MACADAM, approx. area 940 sq. yd. Bills of Quantities and Form of Tender may be obtained from the Engineer and Surveyor, Council Offices, Harestone Valley Road, Caterham.

Sealed Tenders, in the endorsed envelope provided, must be delivered to the undersigned not later than 4 p.m. on MONDAY, 11th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

B. J. SMERDON,
Clerk of the Council.

Council Offices,
Caterham, Surrey.

WHISTON RURAL DISTRICT COUNCIL.

CLOCK FACE ROAD, BOLD.

30IN. DIA. SURFACE WATER SEWER.

TENDERS are invited for the PROVISION and LAYING of approx. 70 yd. of PRECAST CONCRETE PIPE SEWER, together with appurtenant works. Drawings, Bills of Quantities and Specification may be obtained from, and General Conditions of Contract inspected at, the Office of the Engineer and Surveyor, Council Offices, Whiston, Prescot, between 9 a.m. and 5.30 p.m., Monday to Friday.

Tenders, enclosed in envelope provided, to be delivered to the undersigned not later than Noon on WEDNESDAY, 20th December, 1961.

J. R. HENLEY,
Clerk of the Council.

Council Offices,
Whiston,
Prescot, Lancs.

SOUTH DERBYSHIRE WATER BOARD.

PUMPING PLANT.

TENDERS are invited for the SUPPLY and DELIVERY of the FOLLOWING PUMPING PLANT: TENDER "A"—Two Submersible Pumping Units each delivering 175 g.p.m. to an added head of 195ft.

TENDER "B"—Three Horizontal Centrifugal Pump Sets each delivering 320 g.p.m. to an added head of 285ft.

TENDER "C"—Three Horizontal Centrifugal Pump Sets each delivering 140 g.p.m. to an added head of 205ft.

Specifications and Bills of Quantities may be obtained from the Engineer and General Manager, South Derbyshire Water Board, 1 Tenant Street, Derby. Tenders must be delivered to the undersigned not later than 9 a.m., 8th JANUARY, 1962.

The Board does not bind itself to accept the lowest or any Tender.

N. S. FISHER,
Clerk to the Board.

The South Derbyshire Water Board,
The Council House,
Corporation Street,
Derby.

SOUTH DERBYSHIRE WATER BOARD.

9IN. DIA. MAIN—STANTON-BY-BRIDGE TO
TICKNALL AND SMISBY.

TENDERS are invited from firms experienced in maintaining, for LAYING approx. 6,000 yd. of 9in. dia. SPUN-IRON PIPES.

The Specification and Bill of Quantities may be obtained on a deposit of 10 Guineas which will be refunded on receipt of a bona-fide Tender, from the Engineer and General Manager, South Derbyshire Water Board, 1 Tenant Street, Derby, at whose Office the Drawings may be inspected by appointment.

Tenders must be delivered to the undersigned not later than 9 a.m., 10th JANUARY, 1962.

The Board does not bind itself to accept the lowest or any Tender.

N. S. FISHER,
Clerk to the Board.

South Derbyshire Water Board,
The Council House,
Corporation Street,
Derby.

CONTRACTS

CITY OF LEICESTER.

MARSDEN LANE IMPROVEMENT.

TENDERS are invited from suitably experienced contractors for the ABOVE IMPROVEMENT. The work includes Construction of a Brick-faced Mass Concrete Wall (approx. 70 cu. yd.), approx. 500 sq. yd. of Lean-Mix Concrete with Bituminous Surfacing for Road Widening, approx. 300 sq. yd. flagged footway, and other ancillary works. Further details and Forms of Tender may be obtained from the undersigned on payment of One Guinea, refundable on receipt of a bona-fide Tender. Tenders to be returned, in the official envelope provided, not later than 4.30 p.m. on WEDNESDAY, 20th December, 1961.

JOHN L. BECKETT, M.I.C.E.,
City Surveyor.

Town Hall,
Leicester.

R. J. CARR,
Technical Estimating Services,
73 Leadenhall Street, London, E.C.3.
Telephone: AVE. 9676-1120.

CONTRACT WORK WANTED.—Fencing, Road Work, Sewers, Factory Foundations or Stanchion Bases. Good labour. Also J.C.B.s for HIRE.
Write Box X.5205, "The Contract Journal."

SWIMMING POOL CONTRACTS.—Will any contractor in the North of England, Scotland and South Wales, who is prepared to carry out the constructional and building work involved on new swimming pools, working to our technical directions, please contact UNIT SWIMMING POOLS, LTD., Wolverhampton.

WANTED, BUILDING FIRMS as SUB-CONTRACTORS FOR SITE WORKS and ERECTION OF PREFABRICATED TIMBER BUILDINGS in England and Wales.
Write Box X.5219, "The Contract Journal."

WANTED, HEATING and PLUMBING FIRMS as SUB-CONTRACTORS FOR PREFABRICATED BUILDINGS in England and Wales.
Write Box X.5220, "The Contract Journal."

For Contracts received too late for
classification see page 601

APPOINTMENTS VACANT

COUNTY BOROUGH OF HUDDERSFIELD.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

APPLICATIONS are invited for the FOLLOWING VACANCIES:

- Senior Assistant Engineer—Grade A.P.T. V (£1,310-£1,480).
- Assistant Engineer—Grade A.P.T. IV/V (£1,140-£1,480).
- Assistant Engineers—Grade A.P.T. IV (£1,140-£1,310).
- Assistant Engineers—Grade A.P.T. III (£960-£1,140).
- Works Accountant and Chief Clerk—Grade A.P.T. IV (£1,140-£1,310).
- Quantity Surveying Assistant—Grade A.P.T. II (£815-£960).
- Clerks of Works—One Permanent, One Temporary—Grade A.P.T. II (£815-£960 for 38-hour week).
- Building Inspector—Grade A.P.T. I (£645-£815).

Qualifications and experience required for post: (a) Qualified, with practical experience of direct labour road and sewer works; (b) Qualified, design and supervision of road and sewer works and reinforced concrete; (c) Preferably qualified, but at least 10 years' experience of general municipal engineering; (d) Intermediate Examination of Institution of Civil Engineers or Institution of Municipal Engineers, and general municipal engineering experience; (e) A.C.W.A., preferably with experience of municipal office administration and works costing with a public authority; (f) Experience of the measurement and estimating for public works; (g) Good practical experience of the supervision of road and sewer contracts. Overtime will be paid for additional hours worked; (h) Sound knowledge of building construction and preferably administration of Building By-laws.

Housing accommodation will be available. 5-day week.
Applications to A. L. PERCY, M.I.C.E., Borough Engineer, High Street Buildings, Huddersfield, together with names of three referees, by MONDAY, 11th December, 1961.

Canvassing is prohibited and will be considered a disqualification.

HARRY BANN,
Town Clerk.

Town Hall,
Huddersfield,
November, 1961.

CITY OF SHEFFIELD.

WATERWORKS UNDERTAKING.

INSPECTORS OF WORKS, A.P.T. III (£960-£1,140) are REQUIRED for the supervision of the building of a new water treatment works at Elvington, near York. The estimated value of the works is £1.7m. These are temporary posts, but the work is expected to last until 1965; construction is due to start early in 1962.

Applicants must be skilled building or civil engineering tradesmen with a wide experience of construction, and preferably with previous experience of supervision. Commencing salary within the Grade, according to qualifications and experience.

Apply in writing, giving age, qualifications, trade and experience, and the name of a referee, to me before the 18th DECEMBER, 1961.

JOHN HEYS,
Town Clerk.

Town Hall,
Sheffield, 1.

BORDER RURAL DISTRICT COUNCIL.

(POPULATION 30,000)

DEPUTY ENGINEER (A.P.T. IV).

Candidates must be qualified and have experience in design and supervision of contracts for works of sewerage and sewage disposal schemes, including pumping stations.

An interesting programme of works is contemplated and housing accommodation is available, if required. Half removal expenses and Essential Car Allowance payable.

Applications, naming two referees, to be forwarded to A. C. CRANE, Esq., Clerk to the Council, 7 Victoria Place, Carlisle, by 15th DECEMBER, 1961.

APPOINTMENTS VACANT

BUCKS. COUNTY COUNCIL.

HIGHWAYS AND BRIDGES DEPARTMENT.

TRUNK ROAD, A.4.—SLOUGH-MAIDENHEAD BY-PASS.

CONTRACT NO. 2.

APPLICATIONS are invited for the FOLLOWING APPOINTMENTS on the Resident Engineer's Staff, for supervisory work on the above contract:

- Assistant Engineers at a salary of £1,200 x £50 to £1,300 p.a.
- Inspectors at a salary of £1,000 x £50 to £1,100 p.a.
- Laboratory Assistant at a salary in the range £1,000 x £50 to £1,100.

Applicants for appointments (a) should preferably be Corporate Members by examination of the Institution of Civil Engineers and/or the Institution of Municipal Engineers, and should have had experience of supervising road and bridge contracts.

Applicants for appointments (b) should have had some experience in civil engineering and public works, preferably in regard to roads and bridges.

Applicants for appointment (c) should preferably possess a suitable qualification, and should, in any case, possess some knowledge and experience in laboratory work and in the testing of materials.

The appointments are temporary, for a period of about 1½ years, and the successful candidates will be based on Slough, and will be expected to reside in the vicinity.

The appointments are subject to the Local Government Superannuation Acts, and to the successful candidates passing a medical examination. The appointments are also subject to the National Scheme of Conditions of Service for Local Authorities' Administrative, Professional, Technical and Clerical Grades, and such other conditions as may from time to time be adopted by the Council, and to one month's notice on either side.

If the person appointed provides a motor car for use in connection with his duties he will be paid an appropriate travelling allowance; certain allowances are also payable in respect of subsistence and weekend working.

A weekly allowance of 25s. and return fare home at intervals of two months may be paid for six months to newly appointed married officers of the County Council unable to find accommodation.

This contract includes some five miles of motorway, five miles of ancillary roads, and ten major bridges, and will ultimately form part of the South Wales Motorway.

Application Forms and further particulars are obtainable from the County Surveyor, County Offices, Aylesbury, to whom completed forms must be returned by MONDAY, 11th December, 1961.

R. E. MILLARD,
Clerk of the County Council.

MERIONETH COUNTY COUNCIL.

HIGHWAYS AND BRIDGES DEPARTMENT.

APPLICATIONS are invited for the FOLLOWING PERMANENT APPOINTMENTS in the County Surveyor's Department:

- Two Assistant Engineers—Salary Grade A.P.T. IV of the National Joint Council Scales; and
- One Assistant Engineer—Salary Grade A.P.T. II of the National Joint Council Scales.

Applicants for appointments (a) should have had good experience in the design and preparation of road and bridge schemes, and be capable of supervising the actual works, whether executed by contract or direct labour.

Preference will be given to candidates who are Associate Members of the Institution of Civil Engineers and/or of the Institution of Municipal Engineers.

Applicants for appointment (b) should have had experience in the design and preparation of road and bridge schemes.

Preference will be given to candidates who are suitably qualified and have had previous experience under a County Authority.

Applications, on the Council's Application Forms must be received by the COUNTY CLERK, County Offices, Peniarth, Dolgellau, by not later than MONDAY, 11th December, 1961.

COUNTY BOROUGH OF GLOUCESTER.

APPOINTMENT OF CITY ENGINEER AND SURVEYOR, JOINT PLANNING OFFICER.

APPLICANTS must be Members of the Institution of Civil Engineers and/or Institution of Municipal Engineers.

Salary range £2,470 x £75—£2,770. Conditions and Particulars of Appointment to be obtained from the undersigned.

Closing date: 11th DECEMBER, 1961.

A. G. W. BOGGOON,
Town Clerk.

Guildhall,
Gloucester.

COUNTY BOROUGH OF BOOTLE.

BOROUGH SURVEYOR'S DEPARTMENT.

ESTIMATOR/SURVEYOR—WITHIN GRADE A.P.T. III (£960-£1,140).

APPLICATIONS are invited for the ABOVE APPOINTMENT in the Public Works Section of the Borough Surveyor's Department at a salary within the Grade A.P.T. III (£960-£1,140 p.a.), depending upon qualifications and experience.

Applicants must be fully experienced in estimating, valuations and final accounts for housing and other building works. He should also have had experience in the preparation of bonus schemes and cost control work.

Application Forms, from the Borough Surveyor, Town Hall, Bootle, 20, Lancs., are returnable by WEDNESDAY, 13th December, 1961.

HAROLD PARTINGTON,
Town Clerk.

WILLENHALL URBAN DISTRICT COUNCIL.

WORKING FOREMAN—SEWAGE DISPOSAL WORKS.

APPLICATIONS are invited for the ABOVE POST from persons with experience of sewage works operation and general maintenance of plant, and capable of taking charge of the work in the absence of the Manager.

Weekly wage £10 10s.; compulsory overtime payables. Holidays with pay and sick leave.

Applications, stating name, age, experience, should be received by the undersigned not later than MONDAY, 11th December, 1961.

J. R. RIDING,
Clerk of the Council.

Town Hall,
Willenhall.

APPOINTMENTS VACANT

CENTRAL ELECTRICITY GENERATING BOARD.

WEST MIDLANDS DIVISION.

APPLICATIONS are invited for TWO POSITIONS as CIVIL CLERKS OF WORKS in the Electrical Department based at Nottingham, for projects in the East Midlands Division of the Central Electricity Generating Board.

Applicants should have had experience in reinforced concrete structures and the placing of mass concrete foundations, drains and roads. Experience of site measurements is desirable.

Excellent conditions of service, superannuable appointment, salary, according to experience, according to Class L Grade II of the N.J.P. Agreement (£920-£1,243 p.a.).

Apply, quoting Vacancy No. 283/61MR, on application form A.E.6, available from the REGIONAL PERSONNEL OFFICER, 53 Wake Green Road, Moseley, Birmingham, 13, to be completed and returned by 11th DECEMBER, 1961.

WESTERN REGION, NIGERIA.

BLAIZE MEMORIAL INSTITUTE

(Established 1904 under a Trust for the Training of Christian Youth).

Blaize Memorial Institute, Building Contractors, Cabinet Makers, Manufacturers of Fresh Fruit Squashes, etc., with a training school for about 50 apprentices in carpentry, joinery and building, have the FOLLOWING VACANCIES:

- General Manager. Qualifications: At least 10 years' administrative or managerial experience with a building contractor, manufacturer or large commercial undertaking is essential. A Higher National Certificate in Building or a City and Guilds Certificate at Final Level (not Theory only) in a building or allied trade, with at least five years' experience after qualification, will be an advantage.

Duties: He will be required to take full responsibility for the running of the Institute, of which there are four sections, viz.: Fresh fruit squash factory, furniture department, building department, and the training school. Salary: Salary, depending on qualifications and experience, will be up to £1,500 p.a., with free furnished accommodation.

- Building Manager. Qualifications: Managerial experience in the building trade and/or furniture trade is essential. A Higher National Certificate in Building or a City and Guilds Certificate at Final Level (not Theory only) in a building or allied trade, with at least five years' experience after qualification, will be an advantage. Duties: To take charge of the building department.

- Fresh Fruit Squash Factory Manager. Qualifications: At least five years' experience in bottling citrus fruit juices, and must have held a post of Production Manager, or its equivalent, in a large squash factory. Duties: He will be required to take full responsibility for organising and operating the fresh fruit squash factory. Salary: In each case of (b) and (c), salary will be between £1,000-£1,300 p.a., with free furnished accommodation, depending on qualifications and experience.

Conditions of Appointment (a), (b) and (c):

- On contract for two years in the first instance;
- Passage paid for self, wife, and up to two children in the case of non-Nigerian candidate;
- Leave—three months, with full salary, on completion of contract;
- Free medical treatment.

Method of Application: Applications, stating age, education, qualifications, brief details of career and experience, present employment and minimum salary desired, should be sent to the following, to reach them not later than 14th DECEMBER, 1961:

- In Nigeria—THE SUPERINTENDENT, Blaize Memorial Institute, P.O. Box 225, Abeokuta.
- In Europe—THE OFFICIAL SECRETARY (Recruitment Branch), Office of the Agent-General for Western Nigeria, 178/202 Great Portland Street, London, W.1.

COUNTY BOROUGH OF BURTON-UPON-TRENT.

APPOINTMENT OF DEPUTY PUBLIC WORKS SUPERINTENDENT.

APPLICATIONS are invited for the ABOVE-MENTIONED POSITION in the Borough Surveyor's Department, in A.P.T. Grades I/II (£645-£960), at a commencing salary in accordance with qualifications and experience.

Applicants should be experienced in the maintenance of highways and sewers, and should preferably be Members of the Institute of Works and Highways Superintendents.

The position is one with good prospects, and will be subject to the usual Local Government Conditions of Service.

Favourable consideration will be given to making housing accommodation available if required. Applications, stating age, qualifications and experience, together with names of two referees, should be received by the Borough Surveyor, Town Hall, Burton-upon-Trent, not later than 13th DECEMBER, 1961.

H. T. MEADES,
Town Clerk.

Town Hall,
Burton-upon-Trent,
17th November, 1961.

TENDRING RURAL DISTRICT COUNCIL.

APPLICATIONS are invited for the FOLLOWING APPOINTMENT, which will be subject to the National Scheme of Conditions of Service, the Provisions of the Local Government Superannuation Acts, and to passing a medical examination:

Chief Engineering Assistant—Grade IV (£1,140-£1,310).

Applicants must possess approved qualifications and should have a sound knowledge of sewerage and sewage disposal, and also of Private Street Works. A car allowance on essential user basis will be payable, and housing accommodation may be provided if required.

Applications, giving full details of age, appointments held, and experience, accompanied by the names of two persons to whom reference may be made, should reach the undersigned not later than WEDNESDAY, 6th December, 1961.

W. S. LAING, A.M.I.Mun.E.,
Engineer and Surveyor.

Council Offices,
Weeley,
Near Clacton-on-Sea,
Essex.

APPOINTMENTS VACANT

COUNTY BOROUGH OF NEWPORT.

APPLICATIONS are invited for the FOLLOWING APPOINTMENTS in the Borough Engineer's Department:

- One Principal Assistant Engineer—Scale "A" (£1,395-£1,565).
- One Senior Assistant Engineer—Grade V (£1,310-£1,480).
- Four Engineering Assistants—Grade I (£645-£815).

Applicants will be expected to have appropriate qualifications, as specified in the Scheme of Conditions of Service.

The commencing salary for each appointment will be at any point within the appropriate Grades, depending upon experience.

A five-day week is in operation. Approved furniture removal expenses will be paid.

Applications, with copies of two recent testimonials, should reach the BOROUGH ENGINEER, Civic Centre, Newport, Mon., by the 18th DECEMBER, 1961.

COUNTY BOROUGH OF BURY.

APPLICATIONS are invited for the FOLLOWING APPOINTMENTS:

- (a) Senior Assistant Architect, A.P.T. IV (£1,140-£1,310).
- (b) Assistant Architect, A.P.T. I or II or III (£645-£815 or £815-£960 or £960-£1,140).
- (c) Senior Assistant Planning Officer, A.P.T. IV (£1,140-£1,310).

The appointments are permanent, and the commencing salary will be fixed according to qualifications and experience.

Applications for appointment (a) should be experienced in dealing with contracts for large public works, and must be professionally qualified.

Applicants for appointment (b) should have general experience in the design and construction of public buildings, and success in Part I or Part II of the R.I.B.A. Final or Special Examination, or other equivalent, at one of the recognised Schools of Architecture will entitle the applicant to appointment on A.P.T. II.

Applicants for appointment (c) should be experienced in either development control or redevelopment and research projects, and should be professionally qualified.

Consideration will be given to the provision of housing accommodation.

Applications, stating age, qualifications, experience, present and previous appointments, together with the names of two referees, must reach me by 18th DECEMBER, 1961.

EDWARD S. SMITH, Town Clerk.

Town Hall,
Bury,
22nd November, 1961.

BOROUGH OF CHELTENHAM.

BOROUGH ENGINEER'S DEPARTMENT.

APPLICATIONS are invited for the FOLLOWING APPOINTMENTS:

- (a) Senior Engineering Assistant — Grade A.P.T. III/IV (£960-£1,310).
- (b) Junior Engineering Assistant — Grade A.P.T. I (£645-£815).

Applicants for: (a) Must have passed the Final examination of the Institution of Civil Engineers or the Institution of Municipal Engineers, and be experienced in drainage, highways and constructional work; (b) Must have had a good general training in a Municipal Engineer's Office.

Both appointments are subject to the National Joint Council's Conditions of Service, to one month's notice in writing on either side, to the successful applicants passing a medical examination, and contributing to the Council's Superannuation Fund. The Council will provide housing accommodation, together with 50 per cent. approved removal expenses, if required, to the successful candidates.

Applications, endorsed with the name of the appointment applied for, stating age, qualifications, experience, and giving the names of two referees, are to reach W. E. C. BIRD, A.M.I.C.E., M.I.Mun.E., Borough Engineer, P.O. Box No. 12, Municipal Offices, Cheltenham, not later than SATURDAY, 9th December, 1961.

F. D. LITTLEWOOD, Town Clerk.

Municipal Offices,
Cheltenham,
22nd November, 1961.

BOROUGH OF CHELTENHAM.

(A) SENIOR WATER ENGINEERING ASSISTANT.
(B) ENGINEERING ASSISTANT.

APPLICATIONS are invited for the ABOVE APPOINTMENT, which will be graded in the A.P.T. Scales according to qualifications and experience. All applicants should have had a sound engineering training, with some waterworks experience.

Applicants for post (a) who are Graduates of the Institution of Civil Engineers, with experience in waterworks design and construction, will be considered for appointment in Grade A.P.T. IV.

Both appointments are subject to the National Joint Council's Conditions of Service, to one month's notice in writing on either side, to the successful applicants passing a medical examination, and contributing to the Council's Superannuation Fund. The Council will provide housing accommodation, together with 50 per cent. approved removal expenses, if required, to the successful candidates.

Applications, endorsed with the name of the appointment applied for, stating age, qualifications, experience, and giving the names of two referees, are to reach W. E. C. BIRD, A.M.I.C.E., M.I.Mun.E., Borough Engineer, P.O. Box No. 12, Municipal Offices, Cheltenham, not later than SATURDAY, 9th December, 1961.

F. D. LITTLEWOOD, Town Clerk.

Municipal Offices,
Cheltenham,
24th November, 1961.

WORTLEY RURAL DISTRICT COUNCIL.

CONSTRUCTION OF SEWERAGE AND SEWAGE DISPOSAL WORKS.

APPOINTMENT OF RESIDENT ENGINEER.

APPLICATIONS are invited for the ABOVE TEMPORARY APPOINTMENT at a salary of £20 per week.

Forms of Application and further details of appointment may be obtained from the undersigned, to whom applications must be delivered not later than MONDAY, 18th December, 1961.

ADRIAN M. KELLY, Clerk.

Council Offices,
Grenoside,
Near Sheffield.

APPOINTMENTS VACANT

NORFOLK COUNTY COUNCIL.

HIGHWAYS DEPARTMENT.

APPLICATIONS are invited for the UNDERMENTIONED APPOINTMENTS:

- Two Engineering Assistants—Grade III/IV (£960-£1,310 p.a.), in the County Roads Drawing Office, Norwich.

Candidates should be Associate Members of the Institution of Civil Engineers, or hold an equivalent qualification by examination. They must be competent Surveyors, having had experience of design, setting-out and construction of roads.

The starting point on the salary scale will be according to qualifications and experience.

A motor car is essential, and the appointed officers will be paid an essential user's car allowance in accordance with the recommendations of the National Joint Council, as adopted and applied from time to time by the County Council. Loans available for purchase if required.

The appointments will be on the permanent establishment of the Department, terminable by one month's notice on either side. The Provisions of the Local Government Superannuation Acts, 1937 to 1955, apply. The successful candidates will be required to pass a medical examination. Grant towards removal expenses.

The National Joint Council Service Conditions apply in general.

Further particulars and Application Forms obtainable from the COUNTY SURVEYOR, County Offices, Thorpe Road, Norwich, NR4 7TA.

Latest date for completed Application Forms: 22nd DECEMBER, 1961.

BOROUGH OF SWINDON.

STORES SUPERINTENDENT.

APPLICATIONS are invited for the ABOVE APPOINTMENT in the Borough Surveyor and Water Engineer's Dept in Barnfield Road, at a salary in accordance with A.P.T. Grade II (£850-£960 p.a.). The person appointed will be expected to take charge of the stores organisation at this new centralised main depot, and applicants should have had considerable experience of modern methods of stores control.

Housing accommodation and assistance towards removal expenses may be offered to married candidates from other areas.

Applications on forms to be obtained from the TOWN CLERK, Civic Offices, Swindon, must be returned by THURSDAY, 7th December.

BOROUGH OF HAMMERSMITH.

ENGINEERING ASSISTANT—A.P.T. V (£1,355-£1,525 p.a.).

APPLICANTS should have passed the Final Examination of the Institution of Civil or Municipal Engineers, and have a general knowledge of municipal engineering.

Application Form, returnable by 8th DECEMBER, from TOWN CLERK, Town Hall, Hammersmith, W.6.

BOROUGH OF OLDBURY.

APPOINTMENT OF CHIEF ENGINEERING ASSISTANT.

APPLICATIONS are invited for this APPOINTMENT within Grade A.P.T. IV of the National Salary Scales (£1,140-£1,310 p.a.), according to qualifications and experience.

Applicants must be Corporate Members of the Institution of Civil Engineers and/or the Institution of Municipal Engineers, and must have had good experience in general municipal engineering work.

Forms of Application and further particulars may be obtained from the undersigned, to whom applications should be delivered by MONDAY, the 11th December, 1961.

Housing accommodation may be made available to the successful applicant if married.

KENNETH PEARCE, Town Clerk.

Municipal Buildings,
Oldbury,
Near Birmingham,
November, 1961.

CITY AND COUNTY OF BRISTOL.

APPOINTMENT OF CIVIL AND STRUCTURAL ENGINEER.

GRADE A.P.T. IV (£1,140-£1,310 p.a.).

APPLICATIONS invited for POSTS OF CIVIL and STRUCTURAL ENGINEERS in General Engineering Section of City Engineer and Planning Officer's Department.

Candidates should have good general experience and training in Municipal Engineering and/or design of bridges and structures in reinforced concrete and steel. Applicants should have obtained a British University degree in Engineering and/or be Corporate Members of appropriate professional Institution, and have appropriate experience for post.

Posts permanent, pensionable: medical examination and, except in case of an officer transferred from service of another Local Authority, six months' probationary period.

Five-day week; staff restaurant facilities. Housing needs of successful candidates and question of contribution towards removal expenses favourably considered.

Applications should be arranged in following order: Age; nationality and whether married or single; education; training; professional qualifications; present post, with salary and date of appointment; previous posts, with salaries and dates of appointment; details of experience; any further remarks in support of application; notice required to terminate present appointment; whether related to a member or senior officer of the Council; names of two referees. Conveying disqualifies.

Applications, clearly indicating post concerned, to CITY ENGINEER AND PLANNING OFFICER, Cabot House, Deanery Road, Bristol, 1, by 15th DECEMBER.

MANCHESTER CORPORATION.

GENERAL ASSISTANT ENGINEERS REQUIRED in Grade A.P.T. III/IV (£960-£1,310) in the City Surveyor and Engineer's Department (Major New Roads Section).

University degree or Corporate Membership of the Institution of Civil Engineers and/or Municipal Engineers essential. Commencing salary according to experience.

Persons appointed will be engaged on the design of major new roads, including a major link road in the city.

Housing accommodation can be provided if desired at a reasonable rent. Removal expenses.

Applications, stating age, education, qualifications and experience with the names of three referees, to the CITY SURVEYOR, Town Hall, Manchester, 2, by 14th DECEMBER, 1961.

APPOINTMENTS VACANT

POPLAR BOROUGH COUNCIL.

ENGINEERING ASSISTANTS (Two) REQUIRED in Poplar Borough Council, Salary Scale £815/£960 p.a. plus Weighting. Commencing salaries in accordance with qualifications and experience.

The appointments provide ample scope for variety of civil engineering work on roads, sewers, public lighting, street furniture and installations, and drawing office duties.

Apply immediately, on form obtainable from BOROUGH ENGINEER AND SURVEYOR, Poplar Town Hall, Bow Road, E.3.

URBAN DISTRICT OF MERTON AND MORDEN.

ROAD FOREMAN, £12 2s. 6d. for 42-hour week overtime and bonus; sick and holiday pay; clothing.

Apply HIGHWAYS SUPERINTENDENT, Merton and Morden U.D.C., Garth Road, Morden, Surrey, 3447.

WILLIAMS BROS., LTD., wish to appoint an EXECUTIVE to be responsible for the profitability and co-ordination of their plant and transport fleet and other ancillaries.—Applicants should write in confidence to the Managing Director, 462, London Road, Isleworth, Middlesex.

REPRESENTATIVE REQUIRED by plant hire company in London. Progressive position. Must be able to promote hire and sales. Car provided.—Write, stating age, experience, and salary required, to Box V.5216, "The Contract Journal."

AGENT.—Qualified Civil Engineer REQUIRED for a sewerage contract in Kent. Attractive conditions of employment, with good prospects for advancement. Write in confidence, with full particulars, to Personnel Officer, M. J. GLEESON (CONTRACTORS), Ltd., Haredon House, London Road, North Cheam, Surrey, Ref. AKS/1.

CONTRACTOR'S ORGANISATION

On a large overseas job has an immediate vacancy for a CIVIL ENGINEER, whose duties will probably be mixed site and office work, the latter being particularly measurements and certificates.—Write, giving age, qualifications, names of previous employers and short descriptions of the contracts concerned, to:

BOX V.5210, "THE CONTRACT JOURNAL."

REINFORCED CONCRETE DRAUGHTSMEN AND DETAILERS, with at least three years' drawing office experience, are invited to apply for employment. Five days a week, in pleasant working conditions, with LESLIE TURNER AND PARTNERS, Consulting Engineers, 6 Grove Road, Sutton, Surrey, Virginia 0042.

THE SPENCER WIRE CO. (STEEL), LTD., P.O. Box 14, Wakefield, invite applications from trained, experienced SALES REPRESENTATIVES for the sale of their Spencer Mesh Reinforcement Fabric in various areas in the northern part of England and Southern Scotland.—Write in confidence, giving full particulars, addressing application to the Sales Director.

FITZPATRICK REQUIRE qualified ENGINEER for work in the Home Counties area on urban road bridge and underpass type contracts. Applicants should be between 25 and 35 years of age, and have had previous contracting experience.—Apply in writing, stating full particulars, qualifications, and names of previous employers, to Contracts Manager, FITZPATRICK AND SON (CONTRACTORS), LTD., 465 Old Ford Road, Bow, E.3.

ESTIMATOR

REQUIRED by CONSTABLE HART AND CO., LTD. for their Midland Office. Applicants should be experienced in the preparation of make-up and estimate for all types of "black top surfacing, and about apply, in writing, in the first instance, giving details of previous experience, etc., to:

CONSTABLE HART AND CO., LTD., 15 St. James' Chambers, St. James' Street, Derby.

MALGAMATED ASPHALTE COMPANIES REQUIRE experienced ASPHALT AGENT to take complete control of mobile contracts. The post is permanent and pensionable, with good prospects for promotion to a more static position.—Apply to Road Manager, Asphalte House, Palace Street, London, S.W.1.

SENIOR ESTIMATOR REQUIRED by firm of civil engineering contractors. Head office appointment, Berkshire. Permanent and progressive post, with superannuation scheme in operation.—Write in confidence, stating age, full details of experience with past employers, and salary required, to Box V.5211, "The Contract Journal."

SITE ENGINEER REQUIRED for major civil engineering and building contract in Oxfordshire.—Please send full details to Personnel Officer, M. J. GLEESON (CONTRACTORS), LTD., Haredon House, London Road, North Cheam, Surrey, Ref. SEC/2.

PAULING AND COMPANY LTD.

are revising their register of CIVIL ENGINEERING STAFF desirous of taking up overseas appointments. They would welcome hearing from Engineering and Office Staff, also General Foremen, Section Foremen all categories, Foremen/Fitters and Fitters. Your interested should send brief summary of training and experience, together with personal details, such as age, marital status, etc.—Write to:

PAULING AND COMPANY, LTD., 26 Victoria Street, London, S.W.1.

JUNIOR CIVIL ENGINEER REQUIRED for examination of civil engineering contractors in Northampton. Permanent position, with excellent prospects. Write, giving details of experience, and salary required, to KIMBELL CONSTRUCTION, LTD., Boughton, near Northampton.

ENGINEER.—Civil Engineering company requires young Engineer, with good practical soil mechanics experience, for new road construction work in East Africa. Applicant will be expected to organise and set up a small soils laboratory and to take tests with a view to drawing up recommendations for suitable road foundations. Free passage and accommodation provided. Good salary and prospects.—Please send, stating full details of past experience, to Box V.5208, "The Contract Journal."

APPOINTMENTS VACANT

GENERAL AND ASSISTANT GENERAL FOREMEN REQUIRED for C.E. and building contracts, London area.—Apply in writing only, stating previous experience, to C. J. SIMS, LTD., 2 Victoria Street, S.W.1

SURVEYOR

For the head office of C. J. SIMS, LTD., Building and Civil Engineering Contractors, 2 Victoria Street, S.W.1, Age 28-35. Applicants must be experienced in all phases of building surveying, from site measuring to preparation of final accounts, including the building-up of rates.—Apply, in confidence, giving age, complete details of training, experience and salary required, to:

C. J. SIMS, LTD.,
2 Victoria Street, S.W.1.

CIVIL ENGINEERS (Senior and Assistants) REQUIRED by London civil engineering contractor for a variety of interesting contracts embracing bridge and marine works in S.W. and N.W. England.—Write brief details of experience to Box CJ932, L.P.E., 60/62 St. Martin's Lane, London, W.C.2.

AGENTS REQUIRED for work in the Home Counties area. Experienced in trunk roads and structural concrete. Write, giving names of previous employers, contracts worked, and salary required, to Contracts Manager, FITZPATRICK AND SON (CONTRACTORS), LTD., 455 Old Ford Road, Bow, E.3.

AGENT

Applications are invited for the position of AGENT on a foreign civil engineering contract of magnitude. Applicants must possess considerable experience in the management of large jobs at home or abroad. Please give particulars of experience and names of past employers.

WRITE BOX V.5106, "THE CONTRACT JOURNAL."

CIVIL ENGINEER/AGENT REQUIRED for reinforced concrete construction work in Dundee area. Must be fully experienced in first-class work; qualifications at advantage. Good salary and subsistence. Car provided.—Please write full particulars, and when free, to Box V.5184, "The Contract Journal."

ACCOUNTANT/OFFICE MANAGER REQUIRED by a medium-sized building and civil engineering company in Birmingham. Must be fully conversant with all duties. Good salary and permanent position for right applicant.—Write Box V.5186, "The Contract Journal."

EDITORIAL ASSISTANT

for Building Journal

PREVIOUS experience of journalism is not essential for this appointment, but candidates must be able to write, clearly, concisely and in good English, short articles on materials, equipment and plant of interest to builders, contractors and architects. Write, giving age and full particulars of education and experience, to: Box V5203, "The Contract Journal"

THE MITCHELL CONSTRUCTION CO. LTD.

requires a

SENIOR QUANTITY SURVEYOR

(Major Power Station Project)

The applicant must have had several years' experience in connection with heavy civil engineering projects. Preference will be given to men between 32 and 40. This is a permanent appointment, offers a good salary and entry into the Superannuation Scheme after a probationary period.—Applications, which will be treated in the strictest confidence, should be addressed to:

The Personnel Manager (Ref. 5.2),
THE MITCHELL CONSTRUCTION CO., LTD.,
Wharf Works, Peterborough, Northants.

CIVIL ENGINEERS

Due to an expansion of activities at home and abroad, we wish to appoint several new men to our staff.

Young CIVIL ENGINEERS (age 24 to 30 preferred) with the ability and enthusiasm to study and develop new techniques are required. A degree or profession qualification is desirable, but consideration will be given to unqualified men with good experience for certain posts.

Our activities cover all aspects of design and construction in the field of submarine pipelines and a wide range of associated subjects.

Whilst a sound general experience is the primary requirement, it is felt that men with tunnelling or marine experience may be particularly suitable.

Appointments will be made in two categories (1) SITE ENGINEER/AGENT; (2) ASSISTANT ENGINEER at head office. The positions are permanent and pensionable after satisfactory trial period.

Please apply to:

LAND AND MARINE CONTRACTORS, LTD.,
"Millbrook," Spital Road, Bromborough, Ches.
Quoting Reference MH.

APPOINTMENTS VACANT

CLASSIFIED ADVERTISEMENT

RATES:

Classification	First Four Lines or Less	Each Additional Line
APPOINTMENTS VACANT	12/-	2/6
APPOINTMENTS WANTED	7/6	1/6
WORK REQUIRED, BUSINESS OPPORTUNITIES, BUSINESSES FOR SALE, DIVING, FINANCIAL, PROFESSIONAL SERVICES, AGENCIES, HORTICULTURAL, PROPERTY, SALE BY AUCTION, PLANT AND MISCELLANEOUS	14/-	3/-
BOX NO. 1/- EXTRA.		

ASPHALT MANUFACTURE.—ASSISTANT to Manager REQUIRED for Greenwich Depot. Mechanical aptitude essential, and experience of this industry desirable. Successful applicant will be given every assistance to take eventual control of this department.—Write, giving full particulars of experience, etc., to THE MOWLEM PAVING CO., LTD., 19 Grosvenor Place, S.W.1.

ESTIMATOR REQUIRED for progressive post with expanding company shortly moving to Erith, Kent. With general civil engineering experience and preferably with keen interest in marine work. Able to work on own initiative. All applications will be treated in confidence.—Please write, giving details of experience, and salary required, to G. TATE AND SON, LTD., Finwell House, 26 Finsbury Square, London, E.C.2.

THE LYON GROUP

ESTIMATOR REQUIRED for all types of building works and reinforced concrete structures up to £1m. in value. This is a responsible position offering the opportunity to expand a department in a rapidly growing organisation, carrying out works throughout the country. Non-contributory pension and life insurance benefits available after qualifying period.—Apply, in writing, giving full details of experience, to:

The Managing Director,
RONALD LYON CONSTRUCTION, LTD.,
Auckland House,
New Zealand Avenue, Walton-on-Thames, Surrey.

SALES MANAGER REQUIRED by Massey-Ferguson distributors. Applicants must be thoroughly conversant with sales control and able to run a sales department entirely. Salary £1,100. Car. Excellent prospects for ambitious and progressive person. Write, giving full details, to Box V.5179, "The Contract Journal."

AGENTS (Civil Engineers) REQUIRED in North West area. These vacancies provide excellent opportunities for capable men with general contracting experience. Age 25-35. Salary according to qualifications and experience. Pension scheme.—Written applications, giving full details, to MEARS BROS. (CONTRACTORS), LTD., Sydenham House, Bromborough Port, Wirral, Cheshire.

QUANTITY SURVEYING ASSISTANTS

required by

ADMIRALTY
WAR OFFICE
AIR MINISTRY
MINISTRY OF WORKS
DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH

Posts in London, Provinces and overseas. Salaries in London for candidates with suitable experience range from £752 p.a. at age 21 to £1,188 p.a. Write for particulars of vacancies in each Department, and forms, to Ministry of Labour, Technical and Scientific Register, (Room 403) 28, King Street, London S.W.1.

TROLLOPE & COLLS LIMITED

invite applications for
ASSISTANT PLANNING OFFICERS

with site experience, knowledge and application of planning techniques, including work study.

The position is permanent and pensionable and the salary will be commensurate with responsibility.

Applications, giving full particulars of qualifications, experience and salary required, should be sent to:

The Personnel Manager,
Trollope & Colls Limited, 1 Noble St., Gresham St., London, E.C.2

APPOINTMENTS VACANT

TRANSPORT/SALES MANAGER REQUIRED for ready mixed concrete plant. Applicants should have working knowledge of transport and office procedure.—Apply in writing to the Manager, FAIRLOP READY MIXED CONCRETE CO., LTD., Forest Road, Barking, Essex, stating experience, and salary expected.

SENIOR CONTRACTS QUANTITY SURVEYOR

Experienced in all branches, REQUIRED for a large and interesting contract in the Carlisle area. Also ASSISTANT MEASURING SURVEYORS. Applicants should be fully mobile and experienced in the site organisation of a contractor's surveying office. Write, giving full details of previous experience, age and salary required, to:

BOX CJ926, L.P.E.,
60/62 St. Martin's Lane, W.C.2.

ESTIMATORS and TRAINEES REQUIRED by AMALGAMATED ASPHALTE COMPANIES, LTD., Asphalt House, Palace Street, London, S.W.1, to work in head office road surfacing department. Permanent, pensionable appointment with good prospects for suitable applicants.—Apply in writing, giving brief particulars.

PLANT MANAGER REQUIRED for operating heavy civil engineering equipment Overseas. Must be fully qualified and at present holding similar position. Write Box V.5243, "The Contract Journal."

ASSISTANT SURVEYOR

REQUIRED for the head office of building and civil engineering contractors in Westminster. Age 20-25. Applicants must be experienced in all phases of building surveying, from site measuring to assisting with preparation of final accounts.—Apply, in confidence, giving age, complete details of training, experience and salary required, to:

C. J. SIMS, LTD.,
2 Victoria Street, S.W.1.

EXPERIENCED QUANTITY SURVEYORS, for building and civil works, REQUIRED, with sound knowledge of site measuring, preparation of interim and final accounts, variations, etc. Good salary, pension scheme; permanent position.—Apply, giving full details of age, experience and qualifications, to the Personnel Manager (Ref. 5.3), THE MITCHELL CONSTRUCTION CO., LTD., Wharf Works, Peterborough, Northants.

GENERAL MANAGER for building and civil engineering contractors. Medium-sized, private company, approx. turnover £2m.; Midlands area. Must have held similar position and have considerable experience in all aspects of civil engineering and building. Age 35-50 years. Commencing salary not less than £2,000. Car provided. Bonus on results. Write, giving full details, to Box V.5229, "The Contract Journal."

SENIOR AGENT REQUIRED, to take control, under Area Manager, of roadworks contracts in the North Somerset and adjacent areas. Applicants should reside in the Bristol or Taunton area and be fully experienced in all aspects of roadworks, particularly surfacing.—Please write, stating age, experience, and salary required, to Box V.5238, "The Contract Journal."

APPOINTMENTS VACANT

FITZPATRICK AND SON (CONTRACTORS), LTD., REQUIRE ENGINEERS between the ages of 22 to 27 years, for work in the Home Counties area, on urban trunk roads, bridges, underpasses, etc. Good salaries and future prospects. — Reply in writing, giving full particulars of technical training, previous experience, and employers, to Contract Manager, Fitzpatrick and Son (Contractors), Ltd., 455 Old Ford Road, Bow, E.3.

FOREMAN PLANT FITTER

REQUIRED. Must have considerable experience in the maintenance, repair and complete overhaul of heavy civil engineering equipment and transport. The successful applicant will be expected to reside in the Stevenage area, and every assistance in obtaining permanent local accommodation will be given. Pending accommodation being available, a subsistence allowance will be considered. This vacancy carries a good salary with contributory pension scheme.—Apply, in writing, giving full particulars of experience, etc., quoting Ref. No. M2399, to:

The Chief Labour Officer,
CONSTRUCTORS JOHN BROWN, LTD.,
C/O House,
Eastbourne Terrace, Paddington, London, W.2.

FOREMEN REQUIRED by JOHN MOWLEM AND CO. for road and sewer contracts, mainly in London area and Home Counties.—Apply in writing to Roads Dept., 91 Ebury Bridge Road, Westminster, S.W.1.

CHIEF ESTIMATOR, thoroughly experienced in pre-cast concrete. REQUIRED by large company in the Midlands. Unusual opportunity for the right man. Write fullest details of experience, salary required, to Box V.5235, "The Contract Journal."

SENIOR ESTIMATOR REQUIRED by firm of civil engineering contractors in the London area. Permanent and progressive post. Superannuation scheme available.—Write, stating age, full details of experience, and salary required, to Box V.5236, "The Contract Journal."

FOREMEN

REQUIRED for large bore piling contracts. Previous knowledge of piling desirable, but applicants with civil engineering experience will be considered. Ability to use dumpy level and theodolite an advantage. Permanent employment will be considered for suitable men, who must be prepared to travel anywhere in U.K. Interviews can be arranged either in London or Birmingham.—Written applications should be addressed to:

BRAITHWAITE FOUNDATIONS AND CONSTRUCTIONS, LTD.,
P.O. Box 2, Great Bookham, Surrey.

OLD-ESTABLISHED North Country civil engineering contractors who intend expansion to cover North of England and South of Scotland would like to hear from: (a) **CHARTERED CIVIL ENGINEERS** and experienced **CONTRACTORS' AGENTS**, capable of controlling contracts up to about £500,000. Prospect of promotion to Area Manager in due course. Starting salary £2,000/£2,500 p.a., according to experience. (b) **CIVIL ENGINEERING ESTIMATORS**, capable of preparing tenders for contracts up to £500,000. Salary from £1,000 to £1,500, according to experience.—Write in confidence, stating age, present salary, qualifications and experience, to Box V.5244, "The Contract Journal."

ASSISTANT QUANTITY SURVEYORS

required by

MINISTRY OF EDUCATION
ADMIRALTY
WAR OFFICE
AIR MINISTRY
MINISTRY OF WORKS
DEPARTMENT OF SCIENTIFIC & INDUSTRIAL RESEARCH

Posts in London, Provinces and overseas. London Salaries for suitably qualified and experienced men up to £1,412 p.a. Prospects of promotion and pensionable status. Write for particulars of vacancies in each Department and forms, quoting J.Q.S., to Ministry of Labour, Technical and Scientific Register (Room 403), 28 King Street, London, S.W.1.

DEPUTY MANAGER

required by progressive Building Contracting firm in North London. The successful candidate must have had practical experience of this kind of work and, in particular, must be capable of preparing and progressing Contracts. The post is pensionable: car provided. Salary according to qualifications and experience.

Applications,

which will be treated as strictly confidential and should give details of qualifications and experience and an indication of salary required, to Box No. V.5232 "The Contract Journal."

APPOINTMENTS VACANT

EXPERIENCED and ambitious **CONTRACTORS' SITE ENGINEERS** are invited to apply for interesting and progressive positions in the North West. Permanent appointments will be offered to the successful applicants, who must have good general experience, be capable and accurate in setting-out and measuring, and able to keep comprehensive site records.—Please write, giving full particulars and stating salary required, to **JAMES BENNETT (CONTRACTORS), LTD.**, Helsby Street, Warrington.

THE LYON GROUP

ASSISTANT SURVEYORS REQUIRED to measure sub-contract works and assist in the preparation of interim valuations and final accounts. Positions are permanent, offering a wide variety of experience in the administration of all types of building works. Non-contributory pension and life insurance benefits available after a qualifying period.—Apply, in writing, giving full details of experience, etc., to:

The Chief Surveyor,
RONALD LYON CONSTRUCTION, LTD.,
Auckland House,
New Zealand Avenue, Walton-on-Thames, Surrey.

A WELL-KNOWN engineering company in S.W. London offers security and opportunity of advancement to a really Top-class **FOREMAN** who has specialised in diesel engine rebuilding (industrial and marine). Applicants should be aged between 35-45, have served an apprenticeship with a diesel engine manufacturer, and held the position of Foreman for three years. A good salary is offered.—Write in confidence, giving fullest details of age, experience, salary now receiving, and references, to Managing Director, Box V.5250, "The Contract Journal."

ROBERT M. DOUGLAS (CONTRACTORS), LTD.

REQUIRE to appoint to their regular establishment:

1. ENGINEER/AGENTS

ENGINEER/SUB-AGENTS

SECTION ENGINEERS

For Civil Engineering Works and combined Civil Engineering and Building Works.

2. **SENIOR QUANTITY SURVEYORS**

For Midlands and North East Areas. Must have sound knowledge of preparation and management of final accounts for civil engineering and building works, based on contractors' site and head office experience.

3. **A COST AND BONUS SURVEYOR**

Preferably with quantity surveyor or civil engineering basic training, to administer and control from head office an established system of (a) Unit Costing and (b) Production Bonus Payment.

There are excellent prospects for progressive careers, and a pension scheme operates.—Reply, in own handwriting, giving the following information: Initial training, qualifications, experience, salary required, and when free to commence, to:

The Secretary,
ROBERT M. DOUGLAS (CONTRACTORS), LTD.,
395 George Road, Erdington, Birmingham, 23.

ASSISTANT ESTIMATOR REQUIRED for permanent, progressive position at Chesterfield office. Applicants should have good quantity surveying experience in both building and civil engineering works.—Apply in writing, stating age, experience, and salary required, to **ROBERT MCGREGOR AND SONS, LTD.**, Turnoaks Lane, Chesterfield.

APPOINTMENTS VACANT

GENERAL FOREMAN and FOREMAN REQUIRED Fully conversant with bridge construction; knowledge of prestressing is essential. Attractive salaries and conditions.—First-class men should apply to Agent, **SIR LINDSAY PARKINSON AND CO., LTD.**, Dunlocksford Road, Alsager, Stoke-on-Trent.

ENGINEER AGENT

Medium-sized civil engineering contracts, Essex. Permanency with excellent prospects.

WRITE BOX V.5231, "THE CONTRACT JOURNAL."

CIVIL or STRUCTURAL ENGINEER (General) Specialised in reinforced concrete design, REQUIRED by consulting engineers, Glasgow. Applicants should be A.M.I.C.E. or A.M.I.Struct.E. Pension scheme available. Commencing salary £1,500-£2,000 p.a., according to experience. Our own staff have been notified of this vacancy.—Write in confidence, in strictest confidence, to Box V.5251, "The Contract Journal."

APPOINTMENTS WANTED

CIVIL ENGINEER/AGENT, 31, SEEKS PERMANENT PROGRESSIVE POST in Contract in Southern Scotland. Experience in estimating in final measurements of roads, sewers, pipelines, etc.

Write Box V.5255, "The Contract Journal."

YOUNG AGENT SEEKS CHANGE, N.E. preferred. Experienced in piling, bridges, road, heavy excavations, earthmoving, etc.

Write Box V.5254, "The Contract Journal."

CARPENTER holds Master Diver's Certificate with endorsements for cutting and blasting. Experienced in civil engineering work. Will consider an underwater task. Travel anywhere.

Write Box V.5252, "The Contract Journal."

SENIOR AGENT/CONTRACTS MANAGER, recently returned U.K. on completion of £2m contract in Jamaica, and with experience in control of large building and civil engineering projects in Bermuda, Ceylon, Singapore, Malaya, Sarawak, Tanganyika, Ghana, Nigeria, SEEKS U.K.-BASED APPOINTMENT where extensive overseas experience can be utilised in the planning, estimating and organising of large projects in overseas territories.

Write Box V.5253, "The Contract Journal."

For Advertisements received too late for classification see page 601

WORK REQUIRED

BULK EARTHMOVING, direct contract or sub-contract. Also **BULDOZERS** and **SCRAPERS** for HIRE.—**RAK H. WAKELING**, 121 King Causeway, Warrington, Lancs. Tel: Warrington 2351.

CONTROLLED EXPLOSIVES, LTD., specialise in the fragmentation of mass and reinforced concrete inside or outside buildings. Demolition of bridges and chimneys, mass rock, trenching, sewage lines, engine beds, etc. deep drilling for caissons. Particulars from 11 Church Street, Oldbury, Birmingham. Tel: Broadwell 3117, Blackheath 1996 & 1763.

WANTED, HIRE or CONTRACT WORK for maintenance of Caterpillar 631 Motor Scrapers, D8s, D8s, 15 cu. yd. Rear Dump Euclid and 348H Roadshovel, **APRIL BRODERICK AND RYAN LTD.**, 421 Nottingham Road, Ilkeston, Derbs. Tel: 4381/2/3.

DROT BT66, fitted Winch, and Priestman Cub V. HIRE or CONTRACT WORK.—**JAMES COOPER LTD.**, 218 Kensington Church Street, London, W.8. Western 3412.

OVERSITE PREPARATION AND COMPACTION with **MODERN MACHINES**.—Write or telephone **SAM BOOTH, LTD.**, 75 Victoria Street, London. Telephone: Sullivan 3791 and Haywards 1126.

ERECTION AND DISMANTLING.—Structural Steelwork and all types of Prefabricated Components. Specially efficient service.—**ERECTORS**, 162 Wilton Crescent, Chesham, Bucks. Waltham Cross 2254.

WANTED, EXCAVATION, SITE CLEARANCE or DEMOLITION WORK.—**R. BARKER (PECKHAM), LTD.**, New Cross 3317.

SITE CLEARANCE CO., LTD., the specialists in **MOTORWAYS and GENERAL SITE CLEARANCE**. All classes of work undertaken. 162 Wilton Crescent, Warrington, Lancs. Tel: Warrington 3412.

HIGHWAY CONTRACTORS, LTD., invite tenders for large or small **EARTHMOVING CONTRACTS**. Direct or sub-contracts undertaken. Specialists in Roadbuilding, Playing Fields and Site Excavation with modern fleet of Caterpillar DW21s, D9s, D6s, Traxcavator 977s, 955s, 933s, Euclid T514s, Ruston Excavators.—Contact Head Office: **HIGHWAY CONTRACTORS, LTD.**, 146A Bath Street, Ilkeston, Derbs., or phone Ilkeston 4376/7.

SITE CLEARANCE, BULK EXCAVATION **JANES AND CO. LTD.**, Trading Estate, Slough. Telephone: Slough 20361—Ext. 4.

EXCAVATION SUB-CONTRACTS. Technical staff available to analyse programme and price complex projects. Particular attention given to finish and compaction D9, D8, TD18 and TD19 Scrapers, Excavators, Loading Shovels and Lorries available with competent and imaginative supervision for execution of work.—**DICK HAMPTON**, Broadmoor Farm, Blacknest, Aiton, Hants. Tel: Bentley 3381.

BULK EXCAVATIONS and SITE WORKS undertaken. Direct or on **SUB-CONTRACT** basis. Quotations given for large or small contracts wherever.—**S. AND L. BULL BROS., LTD.**, 1284 High Street, Winchester. Telephone: Winchester 2354.

UPROOTING—TREES, STUMPS, HEDGES, etc. We have the most experience and all modern equipment.—**T. GRAVESON, LTD.**, Warton, Camberley, Lancs. Telephone: Carnforth 381 and 382.

ERECTION SPECIALISTS.—Prefabricated Dwellings, Offices and Garages Erected.—**J. W. ROBINSON**, 24 Balmoral Road, South Harrow, Middlesex. Telephone: BYRON 8108.

IF TREES, ROOTS or UNDERGROWTH feature in your contract, we would be pleased to quote for the **ECONOMICAL DISPOSAL**.—**BAGSHOT SAWMILLS LTD.**, 32 London Road, Camberley, Surrey. Tel: 3412.

CONTROLLED BLASTING (Home and Overseas). Specialists in Demolitions, Bridges, Reinforced Concrete, Pipe/Culvert Trenching, Mass Rock (Underwater), Mass Rock, Trees, Roots, Sewerage Beds, etc.—42 Richmond Road, Ilford, Essex. Telephone: Ilford 0396.

SURVEYS AND SETTING OUT

LONG DISTANCES
MEASURED OPTICALLY
BY
GEODIMETER

THE SITE SURVEY COMPANY
LONDON, S.E.3.
Telephone LEE Green 7444

WORK REQUIRED

SITE CLEARANCE. Grading, Soiling, Seeding, Turfing and Planting CONTRACTS UNDERTAKEN. Operating in Midlands, Southern and Eastern Counties. GREENSWARD (CONTRACTS) LTD., Thornwood Common, Essex. Telephone: Epping 3368.

EARTHMOVING SUB-CONTRACTORS. Own fleet of E users and equipment. Operating in Midlands, Southern and Eastern Counties.—H.L.S. (PLANT) LTD., Thornwood Common, Epping, Essex. Telephone: Epping 2252 (4 lines).

TURFING, SEEDING, GRADING. Anywhere in Midlands. Keen quotations for roadside verges and open spaces. Cultivated turf always available for immediate delivery.—L. MIDDLETON, Turf and Sports Grounds, 466 Warwick Road, Solihull, Warwickshire. Tel.: Solihull 4155.

WANTED: DEMOLITION, SITE CLEARANCE AND EXCAVATION WORK.—DEMO TRUCKING. LTD. Boxmoor 5376.

DEMOLITION, BULK EXCAVATION, SITE CLEARANCE.—PETER MOBS, LTD., 5 Westland Road, Watford, Herts. Tel.: Watford 23466.

FOR HIRE, brand new Case TRACTOR SHOVELS and International 9K3 SKID MACHINES with all equipments, first-class operators.—BANNISTER AND AUGER (PLANT) LTD., Chelmsford 4881.

IF GRADING, SEEDING, TURFING AND PLANTING form part of your CONTRACT, we will be pleased to quote you.—HOLDROP, 139 Belis Hill, Barnet, Telephone 9111.

SOILING, SEEDING AND TURFING. Site Clearance, EXCAVATION and Levelling Work undertaken in any part of the U.K. at competitive prices.—GILLIAM, Purley, UPLANDS 9222/6.

LAND AND PROPERTY

WANTED. CONCRETE PRODUCTS WORKS or PROPERTY suitable for same. Up to 60 miles N.W. of London. Write Box X.5224, "The Contract Journal."

INVENTIONS

INDUSTRIAL ENGINEERS OF REPUTE invite in strict confidence, DETAILS OF INVENTIONS, with object of manufacturing and world distribution. Write Box K.L.517, "The Contract Journal."

ACCOMMODATION

FOR HIRE, all types of CARAVANS available. Usual amenities. From 40/- per week. Delivered anywhere.—CATERHAM CARAVAN CENTRE, LTD., The A-22 Roundabout, Godstone Road, Whyteleafe, Surrey. Telephone: Upper Waringham 3590/3807.

CARAVANS TO RENT for men with families. Rent £7 to £17 per month. Delivery anywhere. For site accommodation, see our display advertisement. LANDSMAN'S SERVICES, Buckden, Huntingdonshire. Telephone: Buckden 287.

ACCOMMODATE YOUR EMPLOYEES in a 4-berth CARAVAN, fully equipped with heating, lighting, cooking and washing facilities. Hire rates from 50/- per week for four persons. Also MOBILE OFFICES. Deliver anywhere.—NORTHERN CARAVAN DISTRIBUTORS, Handforth, Chesh. Tel.: Mercury 4255/6.

DIVING

REED AND MALLIK, LTD., Civil Engineering Contractors (Diving Division), Milford Manor, Salisbury, Wiltshire. Telephone 5141.

FOR YOUR UNDERWATER WORK, contact the following MEMBERS of the ASSOCIATION OF UNDERWATER CONTRACTORS:—Conroy Lewis, Ltd., Southampton—Southampton 56578. Diving Specialists, Ltd., Dartford—Dartford 24139. Dockland Diving Engineers, Dagenham—Dominion 6444. Overseas Divers, Ltd., Whitby—Whitby 598. A. J. Parsloe, Brighton—Brighton 61228. Underwater Welders and Repairers, Ltd., Cardiff—Cardiff 29631. Universal Divers, Ltd., Liverpool—Liverpool Cent. 4226. The Association of Underwater Contractors, London—Gerrard 0328.

AGENCIES

CONTRACTORS' PLANT COMPANY, situated in Yorkshire, with first-class sales organisation, interested in AGENCIES for range of contractors' plant. Write Box X.5257, "The Contract Journal."

BUSINESS OPPORTUNITIES

PLANT AND CONSTRUCTION ENGINEERING. Tax Free possibilities.—Trustees controlling block of shares in public company amounting effective control, engaged in light engineering, with losses of approx. £150,000 which can be absorbed during the next few years, offer special capital tax free advantages to a PRIVATE COMPANY WILLING AMALGAMATE. Full details to principals. Write Box X.5256, "The Contract Journal."

ESTIMATES

Britain's Most Experienced Private
ESTIMATOR

Fast accurate work. Practical help on site organisation. No contract too large or too small. Comparisons and Investigations. Certificates. Valuations. Negotiations. Surveyors and Engineers sent anywhere at short notice.

WORLD WIDE COVERAGE

R. J. CARR

Technical Estimating Services
73 LEADENHALL STREET, LONDON E.C.3
Telephone: AVE 9676-1120

PROFESSIONAL SERVICES

SETTING-OUT ENGINEERS AND LAND SURVEYORS supplied with full equipment and transport to work singly or in teams in ANY PART OF THE WORLD. Motorways, multi-storey works, tunnels, route location, baseline, precise levels, machine setting. Electronic Distance Measuring Service by the day. PRECISE SURVEYS LTD.—Worcester 27584.

COMPTON OPERATOR, fully trained, own machine, OFFERS ASSISTANCE to quantity surveyors and contractors. Confidential and speedy service at 7/6 per hour.—Tel.: St. Albans 54845.

PUBLIC NOTICE

WILL any person having any knowledge or interest in the UNDERMENTIONED COMPANIES, please communicate with Messrs. ARTHUR C. DOWDING AND SON, 1 Gray's Inn Square, W.C.1?—Board and Co., Ltd. Bates Concrete Manufacturing Co. Bell, P. and Son. Ballast, E. Chase Green Insurance. Cadel, C. S. and Co., Ltd. Cooling, J. G. and Co., Ltd. Godleman, S., Ltd. Hill, R. and Co., Ltd. J. E. Transports. Knowler Bros. Merton Abbey Transport Co. Mymott, G. H. Shaw and Co. Shepherd, W. and Sons, Ltd. Smeed Dean and Co., Ltd. William, S. and Sons, Ltd. Wright, W. and Co. (New Malden), Ltd.

HORTICULTURAL

TURFING — SEEDING — HEDGING. Quotations for all branches of landscape work, anywhere in the U.K. C.E. contracts a speciality. WEBSTER BROS., LTD., of Horsforth, Leeds. Telephone: Horsforth 2364.

TURVES.—Machine-cut, 3ft. x 1ft., close mown, weed-treated, 60/- per 100. Keen trade rates. Will be pleased to quote for your levelling and laying.—R. RANCE, LTD., 24 Sheepcot Lane, Watford. Telephone: Garston 2725.

TURFING — SEEDING — PLANTING. Competitive prices throughout U.K.—KENTISH LANDSCAPES, LTD., Dillywood Lane, Higham, Romney. Telephone: Strood 78028.

ROTARY CULTIVATION, GRADING, EARTH-MOVING, TURFING. Contract or daywork basis. JAMES COOPER, LTD., 28 Kensington Church Street, London, W.8. Western 3412.

TURFING, SEEDING, PLANTING, etc. Competitive prices throughout U.K. Also TURF SUPPLIED. LANDSCAPE AND TURF CO., LTD., Orchard Gate Nursery, Hadlow, Tonbridge, Kent. Tel.: Hadlow 416.

THORN QUICKS and other HEDGING PLANTS. We can supply in any quantity from our own nurseries at very competitive prices. Open for inspection at any time.—MAHOOD BROS., Burscough Bridge, Ormskirk. Telephone Burscough 210.

LARGE SUPPLIES of TURF and TOP SOIL always available. Supplies to L.C.C. and main civil engineering contractors.—HAVERING LANDSCAPE SUPPLY CO., LTD., Thornwood Common, Epping, Essex. Telephone: Epping 2252 (4 lines).

THORNQUICKS.—Contractors supplied from Land's End to John o'Groats at the best prices in the land. Let us quote you. All types of Trees and Shrubs supplied.—ALFRED J. COX (GARDENS), LTD., Stoke Poges, Bucks. Telephone: Farnham Common 881.

HEDGING QUICKTHORNS, excellent quality—12/18in., 18/-, 150/-; 18/24in., 26/-, 210/-; 24/30in., 30/-, 270/-; extra heavy: 30/40in., 35/-, 340/-; PRIVET 24/30in., 35/-, 340/-; GOLDEN PRIVET 18/24in., 21/- per dozen. OVAL LEAF PRIVET—12/18in., 25/-, 225/-; 18/24in., 30/-, 285/-; special transplanted bushy: 30/36in., 100/-, 900/-; BEECH TRANS., 3-year—18/24in., 50/-, 480/-; 30/36in., 80/-, 750/-; LONICERA NITIDA—18/24in., 42/6, 375/-; All above priced at 100 and 1,000. HORNBEE—12/24in., 70/- per 100. LAURELS (transplanted)—12/18in., 18/- per doz.; 18/24in., 24/- per doz. POPLARS (LOMBARDY)—4/5ft., 24/- per doz. BLACK ITALIAN, 24/- doz. CUPRESSUS LAWSONIANA, 12/18in., 130/- per 100; 18/24in., 150/- per 100. All carriage paid for orders over 40/-, under add 2/6. C.W.O. GARDEN BEAUTY PRODUCTS, Wickford, Essex. Telephone 2152.

EDWARD GAIT CONSTRUCTION, LTD., 174 Park Road, Kingston, Surrey (Kingston 9382). All types of Horticultural and Sports Ground Work undertaken. Ferguson TRACTORS with all implements for HIRE, also BULLDOZERS and SCRAPERS for HIRE, direct contract or sub-contract.

WESTMORLAND ROCKERY STONE, (any size), WESTMORLAND RAND AND GREEN WALLING. YORK WALLING AND CRAZY PAVING. SEA WALLS. TURF delivered anywhere. BARON CHIPPENDALE, Carnforth, Lancs. Tel. 612.

QUICKTHORN, SHRUBS, TREES, etc., now being delivered by road direct to sites throughout U.K. Have you ordered your quotas?—ALFRED J. COX (GARDENS), LTD., Stoke Poges, Bucks. Telephone: Farnham Common 881.

FULLER HORSEY SONS & CASSELL

AUCTIONEERS AND VALUERS
OF
PLANT, MACHINERY AND
FACTORIES

Since 1887

10 LLOYDS AVENUE
LONDON E.C.3
TELEPHONE: ROYAL 400

NRP9164

SALES BY AUCTION

With Part Planning Consent for Opencast Coal Operations.
ABELL'S FARM AND FLAMSTEAD LANE FARM, DENBY, near DERBY.
110 ACRES FREEHOLD VALUABLE LAND will be offered by AUCTION, TUESDAY, 12th DECEMBER, 1961, at THE MARKET HOTEL, HEANOR, at 7 p.m. prompt, by
BRYAN ELDER, F.R.I.C.S., F.A.I., Chartered Surveyor, Chartered Auctioneer and Valuer, 3 Market Street, Heanor, Derbyshire. Telephone: Langley Mill 2231.
Solicitors: Messrs. RICKARDS AND CLEAVER, Church Street, Alfreton.

EALING, LONDON, W.5.
PLANT HOUSE, LONGFIELD AVENUE (near Ealing Town Hall).
MESSRS.

RICHARD J. STEEL are instructed by Messrs. Mobile Cranes and Plant, Ltd., to sell by PUBLIC AUCTION on the PREMISES as above on THURSDAY, 7th DECEMBER, 1961, at 12 o'clock noon.

COLES 12½-ton MOBILE CRANE; NEAL 2-ton MOBILE CRANE; SMITH-RODLEY 5-ton MOBILE CRANE; TAYLOR JUMBO 3-ton CRANE; Seven NEAL 15cwt. MOBILE CRANES; Two NEAL LORRY LOADERS; DET-ON STEAM CLEANER; Two AUSTIN VANS; 1½ Sections; Grabs; Overhead Gantries; and the entire Workshop Tools and Equipment, etc. Catalogues of the Auctioneers, The Cattle Market, Southall, Middlesex. Tel.: Southall 1611 and 6970.

THOBY AUCTIONS, THOBY PRIORY, THOBY LANE MOUNTNESSING, BRENTWOOD.
CATALOGUE OF
MOTOR CARS, VANS, LORRIES, TRACTORS, TRAILERS, AGRICULTURAL AND OTHER EQUIPMENT, which.

H. W. INGLETON AND CO. will sell by AUCTION at THOBY PRIORY, THOBY LANE, MOUNTNESSING, BRENTWOOD, on TUESDAY, 5th DECEMBER, 1961, commencing at 11 a.m. (Vehicles Sale 12 noon.) On view Monday, 4th DECEMBER, 1961, 10.30 a.m. to 4.30 p.m., and morning.
Refreshments available.
Catalogue, price 3d., Auctioneers' Offices, High Street, Ingatstone, Essex.

SALES BY TENDER

ABERDEEN HARBOUR BOARD.

Two Stothert and Pitt 7-ton Electric GRABBING CRANES, new 1950, with Two 140/120 cu. ft. 4-rope Grabs, all in first-class order, are offered for immediate DISPOSAL. For further particulars, apply to the undersigned, with whom Tenders should be lodged not later than 31st DECEMBER, 1961.

NORMAN R. BEATTIE, General Manager and Secretary.
Harbour Office, Aberdeen.
23rd November, 1961.

HORNCHURCH URBAN DISTRICT COUNCIL.

ENGINEER AND SURVEYOR'S DEPARTMENT.
SALE OF PORTABLE PUMPS.

APPLICATIONS are invited for the PURCHASE of the FOLLOWING PLANT surplus to the Council's requirements:—
One Murrless 3in. Centrifugal Petrol driven Portable Pump. Year of purchase 1949.
One Wallwin 3in. Centrifugal Petrol driven Portable Pump. Year of purchase 1950.
This plant is offered for sale without guarantee as to condition, and may be inspected at the Council's Depot, Upper Rainham Road, during normal working hours, Monday to Friday, 9 a.m. to 5.30 p.m.
Offers should be received by the Clerk of the Council in a plain sealed envelope, endorsed "Purchase of Portable Pumps," not later than Noon on WEDNESDAY, 13th DECEMBER, 1961.
P. L. COX, Clerk of the Council.

Council Offices, Billet Lane, Hornchurch.

LINCOLNSHIRE RIVER BOARD.

FOR SALE BY TENDER.
One 49RB EXCAVATOR, Machine No. 5536, Class VORN, Engine No. 208534, 1½ No. 13335, Registration No. DL889. Dragline Equipment only. Particulars of inspection and Form 64 Tenders may be obtained from the CLERK OF THE LINCOLNSHIRE RIVER BOARD, 50 Wide Bargate, Boston, to whom completed Tenders must be returned by Noon, 21st DECEMBER, 1961.

GWYNEDD RIVER BOARD.

SALE OF EXCAVATORS.
The Board offer for SALE by TENDER Two EXCAVATORS (Ruston 10RB Diesel Draglines with 35ft. Boom), Serial Nos. 21223 and 21225, first registered October, 1956.
These machines can be inspected by arrangement with the Chief Engineer. Tenders, in plain envelope, marked "Tenders for Excavators Nos. 21223 and 21225," to be forwarded to the Chief Engineer, GWYNEDD RIVER BOARD, Highfield, Carnarvon, by not later than 15th DECEMBER, 1961. No Tender Forms issued.
The Board do not bind themselves to accept the highest or any Tender.

Advertisements received too late for Classification

BOROUGH OF MAIDSTONE. PARK WOOD CLEARANCE AREA—SECTION 3.

TENDERS are invited for FELLING and GRUBBING approx. 18 acres of CHESTNUT WOODLAND at PARK WOOD.
All documents from the Borough Engineer, Palace Avenue, Maidstone.
Tenders must reach me by 10 a.m., 18th DECEMBER, 1961.
T. SCHOLES,
Town Clerk.

BOROUGH OF HERTFORD. CONSTRUCTION OF VENTURI FLUME AT SEWAGE DISPOSAL WORKS, MEAD LANE, HERTFORD.

Experienced firms are invited to submit their names for inclusion on a selected list of tenderers for this Contract.
The work will include the Construction of a Reinforced Concrete Flume and Channel 42in. wide and about 51ft. long, together with 42in. dia. Reinforced Concrete Pipe Connection to an existing sewer, for installation of a Recording Instrument, and various ancillary work.
Applications, by letter, should be received by the undersigned not later than 9 a.m. on the 11th DECEMBER, and should include details of experience in this type of construction, and the names of the Authorities for whom such work has been carried out.
W. A. WEEKS, M.I.Mun.E., M.R.S.H.,
Borough Engineer and Surveyor.

THURROCK URBAN DISTRICT COUNCIL.

ANNUAL CONTRACTS.
The Council invite TENDERS for the SUPPLY and DELIVERY of the UNDERMENTIONED GOODS, MATERIALS and SERVICES for the year 1st April 1962, to 31st March, 1963.
Schedule Description.
(1) Stores and Ironmongery.
(2) Tarmacadam.
(3) (a) not Compounds for Tarspraying;
(b) Cold Bitumen Emulsion.
(4) Ballast, Sand and Shingle.
(5) Lime and Cement.
(6) Stoneware Pipes and Fittings.
(7) Granite Chippings.
(8) Precast Concrete Kerb and Slabs.
(9) Fine Cold Asphalt.
(10) Chestnut Fencing.
(11) Chain Link Fencing.
(12) Window Cleansing.
(13) Coal and Coke.
(14) Reinstatement of Asphalt Carriageways and Footways.
(15) Kerbing and Paving Work.
(16) Plastic White Line Markings.
(17) Giant and Car Tyres, etc.
(18) Petrol, Diesel, Gas Oil and Paraffin.
(19) Sealing Expansion Joints in Concrete Roads.
(20) Disposal of Ferrous Scrap.
Schedule and Forms of Tender and Conditions of Contract may be obtained from the Engineer and Surveyor, Council Offices, Grays, Essex, and the undersigned should be quoted in the application, and the priced Schedule Forms should bear the tenderer's name.
Tenders, in the official envelope provided, bearing no indication of the sender's identity, should be delivered to the undersigned not later than SATURDAY, 30th December, 1961.
The Council do not bind themselves to accept the lowest or any Tender.
A. E. POOLE,
Clerk of the Council.

CARSHALTON URBAN DISTRICT COUNCIL.

TENDERS are invited for the FOLLOWING SERVICES for the period of 12 months commencing 1st April, 1962:
A.T. 1—Supply of Tarmacadam.
A.T. 2—Supply of Bitumen Macadam.
A.T. 3—Supply of Bitumen Macadam (Gravel).
A.T. 4—Supply of Cold Asphalt.
A.T. 5—Supply of Bituminous Emulsion.
A.T. 6—Supply of Ballast and Sand.
A.T. 7—Supply of Artificial Stone Paving.
A.T. 8—Supply of Precast Concrete Kerb.
A.T. 9—Supply of Reconstructed Granite Kerb.
A.T. 10—Heating and Planning of Carriageways.
A.T. 11—Supply and Lay Cold Asphalt.
A.T. 12—Supply and Lay Hot Asphalt.
A.T. 13—Gully and Soakaway Cleansing.
A.T. 14—Surface Dressing of Carriageways.
A.T. 15—Surface Dressing of Footways.
A.T. 16—Miscellaneous Highway Works.
Particulars and Forms of Tender may be obtained from the Engineer and Surveyor at the Council Offices, Stone Court, The Grove, Carshalton, Surrey.
No Tender will be accepted unless in a plain sealed envelope addressed to the Chairman at these Offices and delivered not later than MONDAY, 18th December, 1961.
The envelope must be endorsed "Tender for Road Materials, etc.," and must not bear any name or mark indicating the sender.
The Council do not bind themselves to accept the lowest or any Tender.
C. H. DURRANT,
Clerk of the Council.

DISTRICT COUNCIL OFFICES, The Grove, Carshalton, Surrey.

PLANT AND CONTRACT MANAGER WANTED for well-established company in South West. House available.—Write, stating age, experience, salary required, to Box V.5242, "The Contract Journal."

ENGINEER, QUANTITY SURVEYORS and ASSISTANT QUANTITY SURVEYORS REQUIRED for large contract in Yorkshire. Subsistence, special job allowance and overtime payable in addition to basic salary.—Apply, in writing, stating salary required, qualifications and experience, in Area Manager, HOLLAND & HANNEN and CUBITS (SCOTLAND), LTD., Central Administration Buildings, Kings Way, T.Y.T.E., Gateshead, 11, Co. Durham.

BEESTON AND STAPLEFORD URBAN DISTRICT COUNCIL.

Separate TENDERS are invited for each of the FOLLOWING SCHEMES:
(1) Culverting of Watercourse—Beacon Road, Beeston.
The work covers the Excavation for, and Laying of, 3ft. 7in. square Precast Reinforced Concrete Box Culvert Sections (supplied under separate contract) in the line of the existing watercourse. Overall length of work approx. 160 lin. yd.
(2) Culverting of Watercourse—Welch Avenue to Tevery Close, Stapleford.
The work covers the Excavation, Provision and Laying of 70 lin. yd. of 36in. dia. Concrete Pipes and 130 lin. yd. of 33in. dia. Concrete Pipes through house gardens near the line of the existing watercourse.
(3) Culverting of Watercourse—Banks Road, Toton.
The work covers the Excavation, Provision and Laying of 60 lin. yd. of 9in. dia. Stoneware Pipes and 70 lin. yd. of 24in. dia. Reinforced Concrete Pipes in the line of the existing watercourse.
All three schemes are sited through gardens in private ownership and entail working in confined conditions with the minimum use of mechanical plant. The reinstatement work of fencing, hedging, paving, etc., is considerable and exacting.
Specifications, Bills of Quantities and Forms of Tender may be obtained from the Engineer and Surveyor, Town Hall, Beeston, Nottingham, upon payment of a deposit of Two Guineas for each scheme. The deposit is returnable upon receipt of a bona-fide Tender not subsequently withdrawn.
Each Tender to be returned to the undersigned, in a plain sealed envelope marked "Tender for Culverting of Watercourse, Scheme 1, 2 or 3," not later than Noon on the 11th DECEMBER.
H. D. JEFFRIES,
Clerk of the Council.

BANSTEAD URBAN DISTRICT COUNCIL.

ANNUAL TENDERS, 1962/63.
TENDERS are invited for the SUPPLY of the FOLLOWING MATERIALS and EXECUTION of WORKS for the year ending 31st March, 1963, viz.:
Schedule Description.
(1) Asphalt, Tarmacadam and Surfacing Materials; Supply, also Supply and Lay.
(2) Distilled Tar and Bituminous Emulsion.
(3) Ready Mixed Concrete.
(4) Shingle, Ballast and Grit.
(5) Concrete Kerbs, Channels, Quadrants and Artificial Stone Paving.
(6) Petrol, Diesel, Gas and Light Fuel Oils.
(7) Granite and Limestone Chippings.
(8) Ashes.
(9) Coke.
(10) Cleaning Surface Water Soakaways.
(11) Cutting Grass Verges.
Forms of Tender, Conditions and Specifications can be obtained on application to H. CARMICHAEL, M.I.Mun.E., L.R.I.B.A., Engineer and Surveyor, and completed Tenders are to be delivered to the undersigned, in the plain sealed envelopes provided, endorsed "Annual Tenders," not later than MONDAY, 8th January, 1962.
The Council do not bind themselves necessarily to accept the lowest or any Tender, and reserve the right to accept any Tender in whole or in part.
F. L. SHAW,
Clerk of the Council.

COUNCIL HOUSE, Brighton Road, Banstead, Surrey.

RUGBY RURAL DISTRICT COUNCIL.

THEODOLITE TRIPOD (Stanley fixed-leg) for SALE. As new.—Inquiries to Clerk, RUGBY R.D.C., 24 Warwick Street, Rugby.

BOLTON CORPORATION.

APPLICATIONS invited for APPOINTMENT of CLERK of WORKS in the Borough Engineer and Surveyor's Department. Salary Grade, Miscellaneous IV (£625-£685). Appointment superannuable, subject to medical examination.
Applicants must have experience in construction of roads and sewerage works, be capable of settling out and supervising contracts, and possess a current driving licence.
Application forms from TOWN CLERK, Town Hall, Bolton, returnable by 14th DECEMBER.
PLANT HIRE MANAGER REQUIRES PERSONAL ASSISTANT to supervise operation of growing fleet of contractors' plant. Previous experience in plant hire an advantage, but not essential providing applicant is young and energetic. Company car provided. Pensionable position.—Applicants should apply in writing, stating age and experience, to R. A. DAVIES (MIDLANDS), LTD. AND PARTNERS, 102 Harthill Road, Birmingham, 34.

There is no better medium than

THE CONTRACT JOURNAL

for small classified advertisements

Telephone for LINAGE RATES to WATERloo 3411

BOROUGH OF MORECAMBE AND HEYSHAM.

IMPROVEMENTS AT THE MUNICIPAL CARAVAN SITE—WESTGATE.
TENDERS are invited for the LAYING of SEWERS and CONSTRUCTION of ROADS.
Specification, Bills of Quantities and Form of Tender obtainable at the Office of the Borough Engineer and Surveyor. A deposit of £2, returnable upon receipt of a bona-fide Tender not subsequently withdrawn.
Tenders, endorsed "Improvements at Municipal Caravan Site," must reach me by 9 a.m., TUESDAY, 19th December, 1961.
C. E. BOTTOMLEY,
Town Clerk.

STOCKSBRIDGE URBAN DISTRICT COUNCIL.

SEWERAGE AND SEWAGE DISPOSAL WORKS EXTENSIONS.
CONTRACT NO. 2.
The Council invite TENDERS on a Fixed-price Basis from experienced public works contractors, for the CONSTRUCTION of approx. 1,350 lin. yd. of 27in. to 12in. dia. SPUN CONCRETE PIPE SEWERS, 1,150 lin. yd. of 24in. to 15in. dia. SPUN-IRON PIPE SEWERS, Concrete Tube Manholes, Brick Chambers 4in. dia. Rising Main, together with Sewage Disposal Works comprising Detritus Tanks and Recording Channels, Settling and Stormwater Tanks, Bacterial Humus Tanks, Sludge Drying Beds, Sludge Pumping Station, Recirculated Effluent Pumping Station, Mess Room and Store, and other incidental works, at Stocksbridge.
The Contract will be subject to the I.C.E. Conditions of Contract, and copies of the Specification, Bills of Quantities, Drawings and Form of Tender may be obtained from the Engineers, MESSRS. WILLCOX, RAIKES AND MARSHALL, 33 Great Charles Street, Birmingham, 3, on and after 8th December, 1961, on payment to them of deposit of 15 Guineas (by cheque made payable to the Council) which will be refunded on receipt of a bona-fide Tender, supported by priced Bills of Quantities if requested, and the return of all documents.
The Tender is to be delivered, in the envelope provided, to the undersigned not later than 12 o'clock Noon on WEDNESDAY, 31st January, 1962.
The Council do not bind themselves to accept the lowest or any Tender.
Dated this 31st day of November, 1961.
J. HODGKINSON,
Clerk to the Council.

ESHER URBAN DISTRICT COUNCIL.

9IN. DIA. FOUL SEWER—REAR OF PROPERTIES, BIRDS HILL DRIVE, OXSHOTT.
CONTRACT NO. 322.

TENDERS are invited for the CONSTRUCTION of approx. 320 lin. yd. of 9in. dia. SALT-GLAZED WARE FOUL SEWER, together with Precast Concrete Manholes and incidental works.
Form of Tender, Specification and Bills of Quantities may be obtained from the Engineer and Surveyor's Department, Council Offices, Esher, Surrey, upon payment of a deposit of £1 1s. which will be refunded upon receipt of a bona-fide Tender, together with the return of all documents in good conditions. Drawings relevant to the works may be inspected at the above address during normal office hours.
Tenders, on the prescribed form, enclosed in this envelope provided, endorsed "Contract No. 322," and bearing no name or mark indicating the sender, must be addressed to the undersigned and received by him not later than 5 p.m. on WEDNESDAY, the 27th December, 1961.
The Council do not bind themselves to accept the lowest or any Tender.
A. G. CHAMBERLIN,
Clerk of the Council.

COUNCIL OFFICES, Esher, Surrey.

STOCKPORT CORPORATION.

TENDERS.
TENDERS invited for the FOLLOWING:
(1) Erection of:
(a) Eight Aged Persons Flats at Liverpool Street, Reddish.
(b) 12 Aged Persons' Dwellings at Dialstone Lane, Stockport.
(c) 14 Aged Persons' Flats and Four Aged Persons' Bungalows at Frodsham Ave., Heaton Moor.
Documents available 30th November, 1961, on application to Borough Architect, Town Hall, Stockport. Tenders due Noon, 4th JANUARY, 1962.
(d) Great Moor Clinic, Store Street, Great Moor — Brick Construction, Single-storey Flat Roof.
Documents available 1st December, 1961, on application to Borough Architect, Town Hall, Stockport. Tenders due Noon, 8th JANUARY, 1962.
(2) Final Carpeting of Lowndes Lane.
Tenders invited from experienced contractors for the Laying of approx. 210 tons 1/2in. thick Bituminous Carpet by machine, and completion of a small area of Footpath in Flaggings and Concrete.
Further details and documents from BOROUGH SURVEYOR, Room 76, Town Hall, Stockport, to whom prices should be returned, is enclosed provided, by Noon, 18th DECEMBER, 1961.

SURVEYOR REQUIRED for building and civil engineering contractors operating mainly in Southern England, with head office near Guildford. Successful applicant will be head office-based, visiting various contracts. Duties will include preparation of interim and final accounts, checking sub-contractors' accounts, detailing of requirements for contract materials, summing up cost details and assisting with programming. Contracts range from £30,000 to £300,000. Good opportunity exists in an expanding established organisation for energetic and diligent man.—Write, giving full particulars of training and previous experience, with age and present salary, to Box V.5263, "The Contract Journal."

WILLIAMSFORM TIES

ARE BEING USED MORE AND MORE

BECAUSE THE 'WALER' BOLTS
CAN BE USED AGAIN AND AGAIN



*Williamsform High Tensile Steel Rod Ties
give increased efficiency, speed construction and
cut costs*

5,000,000 gallon
reservoir under
construction for
Guildford, Godalming &
District Water Board.
Contractors: Peter Lind
& Co. Ltd.
Consulting Engineers:
L. G. Mouchel
& Co. Ltd.

JOHN LYNN & Co. Ltd. (Land Division)

HEAD OFFICE: Pallion, Sunderland Telephone: Sunderland 56037

LONDON OFFICE: Creechurch House, Creechurch Lane, London, E.C.3. AVE 9271

GREAT BRITAIN PATENT NUMBERS 769592, 790481, 790635, 800301, 800302, 804152, 827088, OTHER PATENTS PENDING

THE CONTRACT JOURNAL

INCORPORATING

THE BRITISH CONSTRUCTIONAL ENGINEER AND THE CONTRACTOR

THE CONTRACT JOURNAL

Incorporating

THE BRITISH CONSTRUCTIONAL ENGINEER

and

THE CONTRACTOR

Established 1879

No. 4,301 Vol. CLXXXIV Nov. 30, 1961

Editor:

LAWRENCE MCCARTHY

PRINCIPAL CONTENTS

	PAGE
Winter Conditions should not Affect Slough By-pass Schedule	604
Mechanisation of the Smaller Contract: Types and Uses of Cranes in Building	607
"Tent"-Roofed Commonwealth Institute	610
John Sumner's Notebook	612
Lengthening of Platforms at Blackfriars Station	613
In Parliament	614
Unusual Reinforced Concrete Design for Los Angeles Building	615
Late Construction News	616
Reconstruction of Bridge Over Regents Canal	617
£620m. of Construction in the Third Quarter	618
Excess Expenditure on Stoke Newington Housing Scheme	619
Men and Movements	620
CL.A.S.P. System Now to be Made Available in Italy	621
"The New Chicago Plan"	639
Talking of Safety, by "Dragee"	640
Progress and Aims of the Modular Movement	641
For the Diary	642
Trade and Company News	643
CURRENT CONSTRUCTIONAL ACTIVITIES:	
Projects	622
Contracts	625
Awards	631

Publishers

The Contract Journal Co., Ltd.,
32 Southwark Bridge Road, London, S.E.1.
Telephone: Waterloo 3411 (7 lines).
Telegrams: "Seejasir," Sedist, London.

Subscriptions

"The Contract Journal" can be supplied direct from the above offices. Subscriptions, payable in advance: Yearly, £5 4s. (post free); half-yearly, £2 12s. An order form appears on page 664.

Advertisements

Advertisement rates may be obtained on application to R. Binfield, Advertisement Manager.

PAUSE TO PONDER

THE bald facts about the wages situation were stated bluntly by the Prime Minister recently when he said that since 1948 salaries and wages had risen by 120 per cent., but output only by 40 per cent. and prices 50 per cent. Thus the objective of the pay pause is to cover the immediate situation while (in the words of the Queen's Speech) efforts are made "to secure a better relationship between increases in incomes and in national productivity".

The unions part company with the Government on two counts. They consider that the present pay pause is disruptive of good industrial relations. Furthermore, they claim it is positively harmful in the present economic situation because in their view the economy is running down. The Government do not share this view and have been advised that strong expansionary forces will be at work again early in 1962.

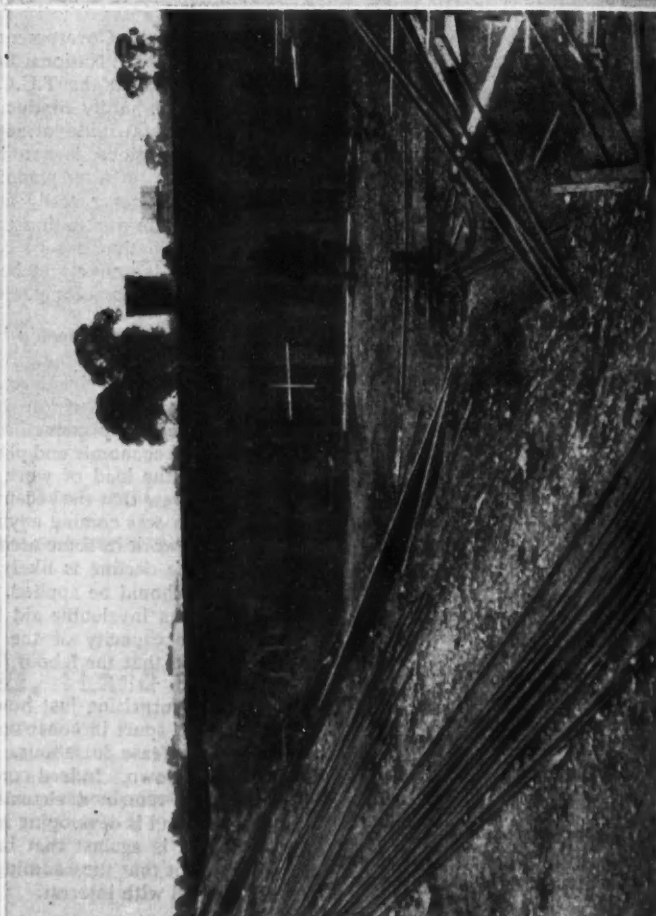
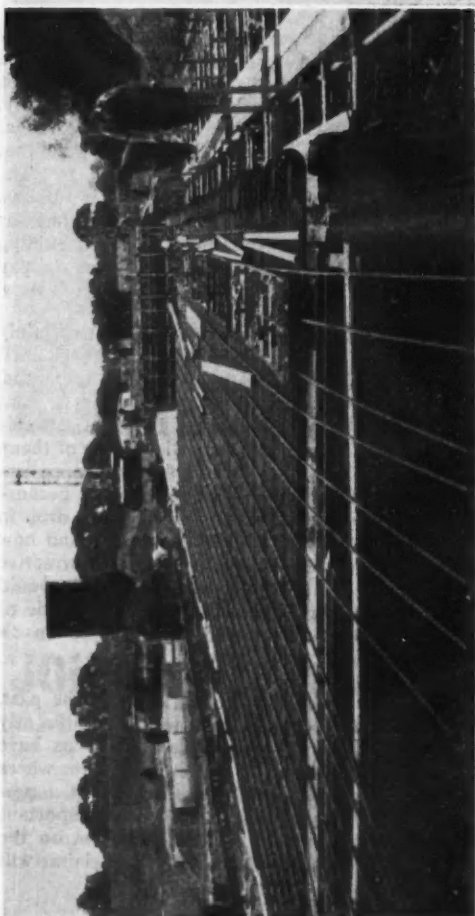
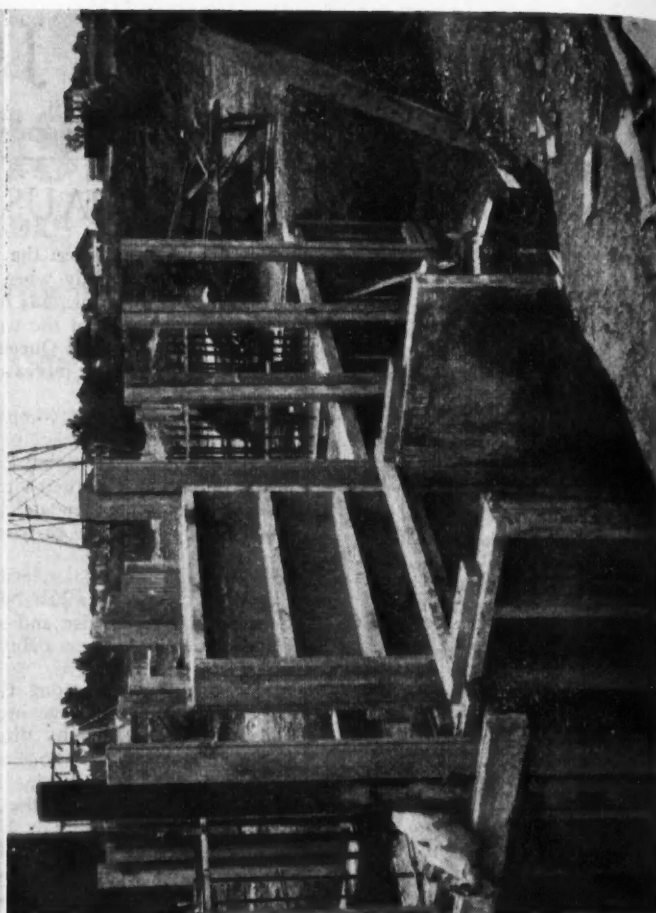
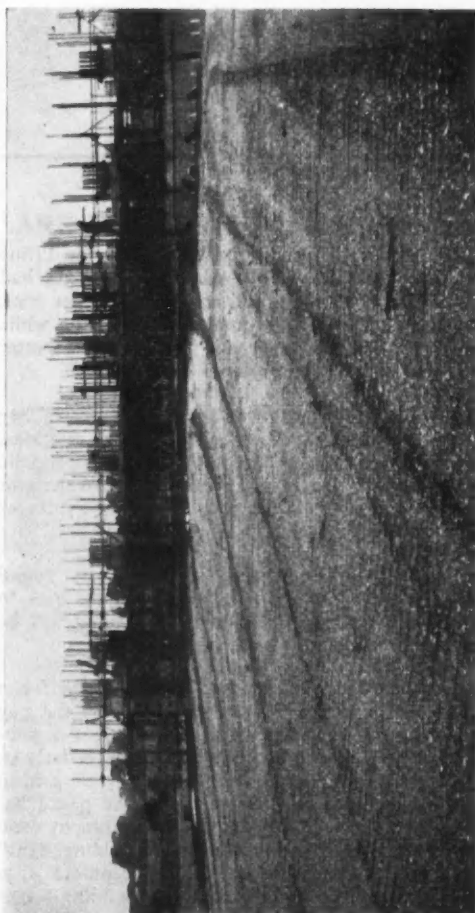
All this has great relevance to the building industry where the next round of wage claims have just been submitted. It is one of the last industries to receive a big pay rise and a further advance of $\frac{1}{2}$ d. or 1d. per hour will be automatically due next February under the sliding scale clause.

Nevertheless, among the claims (listed on another page) is one for a further substantial wage increase. This claim fills another place in the pay claim queue headed by three million engineering workers who want a substantial rise and a 40 hour week. The queue is not likely to be an orderly or passive one. Mr. Cousins has already referred to the possibility of a head on clash over wages if the pay pause goes on. But although the pause has been breached, notably in the electricity supply industry, the Government seem determined not to call it off immediately. When they do a "guiding light" policy may well follow in which an indication of nationally acceptable wage increases, say $2\frac{1}{2}$ per cent. will be given. Such an increase on building wages would amount to about $1\frac{1}{2}$ d. per hour.

One of the Government's main hopes for achieving a saner wages policy was the proposed National Economic Development Council. This has rebounded because although the T.U.C., may yet eventually decide to participate, their mood will be hardly conducive to the harmonising of wages with productivity. The T.U.C.'s attitude, although perhaps understandable following the Budget surtax concessions, is nonetheless unfortunate because the fact remains that various forms of wage planning do seem to be effective on the Continent. The T.U.C., have never really favoured a planned wage policy, but it is obvious that in Britain a situation under which earnings are increasing three times as fast as production cannot continue indefinitely. Nonetheless, even a guiding light policy is unlikely to be any more acceptable to the T.U.C., than the pay pause unless it is accompanied by similar restrictions on profits and dividends.

While the relationship between wages and productivity is almost certainly on the agenda for the proposed National Economic Development Council it is almost inconceivable that wages matters will be discussed on the parallel body being set up within the construction industry. But the proposed construction industry council will have some equally vital problems to grapple with on the economic and planning front. Future housing policy is one of them. Trends in the load of work is another. For many contractors and suppliers hold the view that the recent cuts in the programme were unnecessary because a recession was coming anyhow. Already there are signs of a serious drop in industrial work in some areas. But no one seems to know just when and how quickly the decline is likely to set in and thus when the advance corrective measures should be applied. Capacity is another important matter. It would surely be an invaluable aid to planning if some assessment could be made of the future capacity of the construction industry based for example on an assumption that the labour force will remain constant.

It is surprising just how constant the labour force has been in the past. The recent spurt in construction output has been achieved with a significantly smaller increase in labour. Thus productivity has increased and costs have been held down. Indeed construction must be one of the few industries where costs have remained virtually constant between 1957 and 1960. But a new upward trend is developing in which this year's wage settlement is an important factor. It is against that background and the taut national situation on the wages front that the handling of the current batch of building wage claims will be watched with interest.



WINTER CONDITIONS SHOULD NOT AFFECT SLOUGH BY-PASS SCHEDULE

PROGRESS of the Slough By-pass contract, on which work started in April of this year, has been in accordance with the scheduled programme, and structures are almost clear of any possible foundation difficulties that might ensue from winter flooding.

The £4m. scheme, which will be 5½ miles in length, is being constructed to motorway standards, with two 24ft. carriageways, a central reservation, and hard shoulders, 9ft. 6in. wide. It will leave the A.4 near the Windsor Road junction east of Slough, and will proceed westwards to the south of Slough, by-passing Datchet with a major crossing over the main Slough-Windsor road, and another major crossing over the Slough-Windsor railway.

At Chalvey a large roundabout will allow traffic from Slough to join the motorway via Tuns Lane. The roundabout will be set at a low level, and the motorway will be carried across it by two bridges, slip roads ramping in from the roundabout to join the motorway.

Continuing westward, the road will be crossed by two overbridges, carrying secondary roads at Wood Lane and Oldway Lane. It will then join the existing M.4, the recently completed Maidenhead By-pass. When the contract is completed the M.4 will stretch for a distance of about 10½ miles, from west of Maidenhead to east of Slough.

The main soft areas have been completely excavated, the total of 500,000 cu. yd. including a greater amount of excavation of peat and silt than had been envisaged. About 2,000,000 cu. yd. of granular filling is being imported from local pits for replacement of the unsuitable material, and this operation is halfway towards completion.

Negligible Cut

Generally throughout its length the road will be raised a matter of 2ft. or 3ft., making the amount of cut negligible. This raising is necessitated by the low-lying land with a high water table through which the route passes. Where it crosses the railway line, the road will be built up on an embankment about 38ft. in height, which will continue at a high elevation over the main Slough-Windsor road.

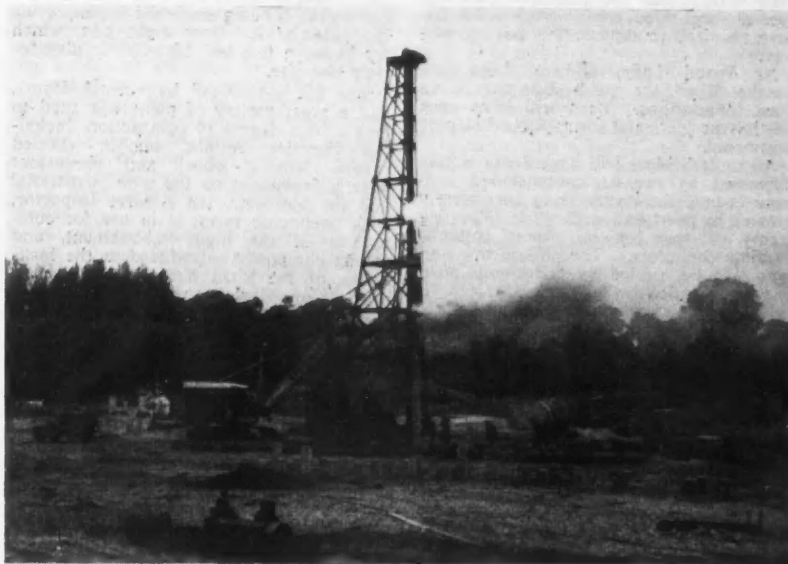
After excavation, and following the treatment of soft areas with ballast filling, an 18in. layer of selected granular material will be laid. Where high embankments occur, a 90ft.-wide core and shield will be provided. The core may be of approved chalk, cohesive material, or pulverised fly ash, and the shield will consist of a granular material. In any embankment the amount of core material that may be used is restricted to use above a minimum height from existing ground level to a maximum height of 20ft. within the embankment, dependent on conditions.

Above the 18in. of granular fill will be a 6in. sub-base, which may be cement-stabilised at the discretion of the engineer. Above this sub-base will be two 5in. layers of lean-mix concrete, beneath a 2½in. base-course of gravel asphalt, with a 1½in. wearing course of either hot rolled asphalt or dense tar.

All existing streams, of which there are quite a number, will be diverted, and this operation is 75 per cent. completed. French drains will run down the central reservation, with manholes and cross-drains which will discharge into open ditches formed on the outsides of the hard shoulders. On roundabouts, the drainage will be carried into gully pots and piped away to existing drainage systems.

Bridgeworks

Bridgeworks on the by-pass will comprise five overbridges above the motorway, of which three are piled; five underbridges;



Piling rig in operation



Compaction work in progress



Formation of embankment

three footbridges; and several large culverts which will pass beneath the road. A pedestrian subway will also be constructed.

Among the major bridges is that which will cross the Slough-Windsor railway. Deep foundations are employed here and special sheet-piled construction work has been required to support the existing railway.

At Wood Lane, Oldway Lane and Datchet Road, the overbridges will be on piled foundations. They will have open trestle-type piers and stone-pitched sloping abutments.

All underbridges will have decks simply supported by precast, pretensioned concrete beams, the decks being transversely stressed by post-tensioned cables. Capping beams will span between shaped columns forming the piers. The abutments and piers will be carried by continuous strip footings founded on ballast about 6ft. to 8ft. below existing ground level.

Three of the underbridges have central spans with side spans. The bridge over the railway will have five spans, of 44ft. 10in.; 48ft. 1½in.; 50ft. 7½in.; 48ft. 1½in.; and 44ft. 10in.; and it will have a skew of 33 degrees. Over the Slough-Windsor road, the Prince of Wales bridge will have a skew of 27 degrees, with two centre spans of 47ft. 7in. and two side spans of 36ft. 10in.

The largest of the underbridges will have two centre spans of 47ft. 7in. and two side spans of 36ft. 10in.

The largest of the overbridges will have two centre spans of 56ft. 11½in. and two side spans of 36ft. 9in. Apart from the

three structures previously mentioned, overbridges will be on normal reinforced concrete foundations.

Plant in Use

Excavation was by dragline excavators, and a fleet of about 250 7-12 cu. yd. capacity trucks is being employed for importing the granular fill from eight pits, which are between five and 10 miles in distance from the site.

The fill was spread by normal dozers, and a great variety of plant was used to give a high degree of compaction, including vibrating rollers, smooth-wheeled rollers, wobbly-wheel and sheepfoot rollers, dependent on the type of material and the position. An Albaret Isopactor, with pneumatic tyres, is in use for compaction of the high embankment, and among equipment introduced at the instigation of the Road Research Laboratory is an 8½-ton vibrating roller.

Due for completion in the spring of 1963, the contract is at present employing a labour force of about 400, a number of whom are brought in by bus from London.

The contract is being carried out as a joint venture for Buckinghamshire County Council, the agent authority for the Ministry of Transport, by Higgs and Hill, Ltd., and Richard Costain (Civil Engineering), Ltd. Estimated to cost £3m., the roadwork section of the scheme is the responsibility of Richard Costain, and bridgeworks, amounting to about £1m., will be carried out by Higgs and Hill. Mr. E. H. Frankland, M.I.C.E., M.I.Mun.E., M.Inst.H.E., is the county surveyor.



The western end of the by-pass, where it joins short made-up link to M.4 motorway intersection

OXFORD SOUTHERN AND WESTERN BY-PASS OPENED TO TRAFFIC

THE new Southern and Western By-pass of Oxford, a further step in the scheme to provide the city with a complete system of trunk ring roads, was opened to traffic last week.

Started in late 1958, the scheme involved the construction of about four miles of dual carriageway, together with six major bridges, three flood arches and three accommodation bridges.

The road starts in Berkshire from the Southern By-pass at Botley (Yarnell's Hill) passes over the existing Oxford-Swindon Road (A.420), continues over the Thames into Oxfordshire and on to the 820ft. long Wolvercote Viaduct. This viaduct carries the road over the railway, the Oxford canal and the A.40. The new road finally terminates at the A.34 roundabout on the Oxford-Woodstock road.

The Thames bridge, which crosses the river to the south of the viaduct, has a

span of 140ft. and is 75ft. wide between parapets. It has a very slender appearance, achieved by a series of two pinned portal frames cast in situ and post tensioned. The triangulated legs of the portal frames are hinged, the back legs acting as ties and the front legs acting as struts. The latter were stressed by jacks built in at a low level. The foundations are deep and cast inside permanent steel sheetpiled coffer-dams while the abutments above ground level are faced with precast exposed aggregate panels.

The scheme was prepared for the Minister of Transport and Civil Aviation by his agent authority, the Berkshire County Council, (County surveyor and engineer, Mr. K. B. Brow, M.I.C.E., M.I.Mun.E.). The consulting engineers for the bridges were R. Travers Morgan and Partners.

Higgs and Hill, Ltd., were the main contractors.

PACKAGE DEAL

To the Editor of "The Contract Journal"

Sir,—I have been out of town for some days and am only just catching up with my reading of *The Contract Journal*.

I have noted the letters of Mr. Duckworth and Mr. Venton appearing in your issues of October 12 and 26. In both cases great stress is made of the fact that package dealing is new, whereas, in fact, it was in being as far back as the birth of Queen Victoria and has continued ever since. The only difference in the method of that period and nowadays is that invariably a practical craftsman was the prime mover, interested not only in the profit motive but the quality of the work, whereas today most package deals are operated by finance houses who have little or no knowledge of the building and civil engineering industry.

Whilst it is true that the property developer is solely concerned with the quickest return for his investment, the same cannot be said of a person renting a building—he is very much interested in the question of maintenance.

I would ask Mr. Duckworth if he has observed the difference between work carried out purely from the point of view of investment and projects specifically designed to a client's requirements, by professional consultants.

In a package deal the contractor must be certain that he has covered for all contingencies, if he is to make a living. This is borne in mind when submitting a price, therefore any possible mistakes are adequately covered without any method of checking and I am adamant that this is the most expensive form of construction.

Mr. Duckworth's reference to design and a firm price being obtained within seven weeks points to the fact that we are at a cross purposes. The design and pricing of a standard type building within seven weeks is something with which I agree but a "one off" design covering all the specific requirements of a client, and obtaining the necessary approvals from the various authorities takes several months.

I would point out to Mr. Venton that the American Society of Engineers is growing apace and there is now a greatly increased number of independent American consulting engineers. There is also a large influx of professional quantity surveyors, all of which makes one feel that the methods he lauds so highly, are not so perfect as he would have us believe.

Yours, etc.,

FREDK. S. SNOW.

Frederick S. Snow and Partners,
London, S.E.1.

COMPLICATED ALTERATIONS COMPLETED

The complicated task of altering and adapting six floors of about 500 rooms into modern offices for the Canadian Government in Grosvenor Square, London, has been completed by Griggs and Son, the building and civil engineering division of the Land and General Developments Group.

This contract, valued at about £100,000 was started in December, 1960. Originally the six-storey block was the American Embassy. But even earlier it comprised 30 luxury flats, each with its own servants' quarters. The Americans made many alterations and the layout became very complicated with each floor having 60-70 rooms and linked by a maze of inter-connecting corridors and staircases.

As well as carrying out the demolition and re-erection of partitions and decorations, Griggs built a cinema on the ground floor to seat 70. On the first floor are constructed the immigration and medical departments. Two X-ray rooms had to be built each with its own dark room and film developing office alongside. To avoid over-exposure to harmful rays by the operators the walls and changing cubicles in the X-ray rooms had to be specially constructed with certain protective lead contents.

MECHANISATION OF THE SMALLER CONTRACT

Types and Uses of Cranes in Building

THE use of cranes on the smaller site, as part of the increasing role being played by cranes in building, was the subject of a symposium held last week at The Building Exhibition by the London Building Productivity Committee.

Two Papers, entitled Types of Cranes and Application and Economics, well supplemented with slides, were given respectively by Mr. R. C. Chevassut, Engineer-in-Charge of Research and Development, Ruston-Bucyrus, Ltd., and Mr. H. G. Vallings, A.M.I.Mech.E., engineer in the Mechanisation Division at the Building Research Station. The meeting, which was presided over by Mr. N. S. Farrow, O.B.E., F.I.O.B., chairman of the Productivity Committee, ended with questions put to a discussion panel composed of the two speakers and Mr. T. Sutcliffe, of Abelson and Co. (Engineers), Ltd., and Mr. R. E. Carter, of R. G. Carter, Ltd.

In this issue we give extracts from the first of the Papers, comprising a summary of the various types of crane available and general information on their characteristics and uses.

TYPES OF CRANES

By R. C. Chevassut and T. Sutcliffe

Building construction today, and in particular the class of work undertaken by the small and medium sized firm of contractors, is highly competitive and the future prosperity of the industry and the country as a whole, not to mention the building contractor, will depend on increased productivity; more buildings, more quickly and more cheaply. To this end, mechanisation, or the replacement of human labour by machines is playing an increasing role in the building industry. High wages and continued labour shortages are powerful incentives for this trend to develop and for the industry to become more highly mechanised; and while few possibilities exist for mechanisation of the traditional craft processes, there is much scope for the application of mechanical aids in the handling of materials, and the work of general labourers and helpers may now be carried out more efficiently by a much smaller number of machine operators.

Over the last 15 years cranes have been increasingly developed for, and used in connection with, the building industry and today, the number of different types and designs of cranes available to a building contractor is very large. To the small and medium sized firm of builders, who have not had wide experience in the use and application of cranes, the question as to whether they can profitably employ a crane and, if so, which crane will best serve their needs, must be a formidable one and the purpose of this Paper is to assist such builders in making their choice.

It has been said that the building industry has an almost superhuman resistance to change and continues to adopt traditional and expensive techniques in the face of modern developments and processes. This generalisation is questionable but it cannot be denied that the adoption, by the smaller firms of contractors, of machines for materials handling has been slow and it is only in recent times that they have been increasingly used.

Excessive Materials Handling

Brick elevators and hoists have displaced hods and ladders. Wheelbarrows have given way to small dumpers, mono-rails and concrete pumps.

Generally, however, the efficiency of such equipments is limited, since they are able to perform an individual operation only and can either carry materials or lift materials, but cannot do both. The use

of a platform, or skip-hoist or brick elevator for raising materials only takes care of the vertical component of their movement and the materials must be brought to and taken away from the hoist by other means, thus involving double or triple handling. In the case of a typical two-storey house which weighs about 150 tons, this multi-handling of the materials involves considerable effort and time and may be a significant factor in building costs.

A versatile machine for dealing with most of the handling and transporting problems on a building site is the mobile crane which can move materials horizontally as well as vertically and can place heavy units in position with the minimum of manual assistance. A mobile crane is a crane which moves, and that would include just about everything but a gin pole! Nowadays, however, mobile cranes are understood to be self-propelling cranes rather than the so-called portable crane which is unable to travel under its own power and which has to be either towed or man-handled to and about the working site.

Portable Cranes

Portable cranes are provided with power hoisting of the load but may have either hand- or power-operated derricking and slewing motions. The powered motions of the crane are driven by a small compact diesel engine which, together with the crane jib and winch gear, is carried on a turntable mounted on a simple travelling carriage equipped with a towing bar. A variety of mountings is available but solid wheels are usual on the smaller machines. Alternative working equipments such as a mast with jury jib, or trench jib, may be fitted in place of the crane jib on certain of these cranes.

A number of portable and semi-portable multi-purpose cranes of both British and Continental manufacture are available, costing between £1,200 and £2,000, depending on their capacity and versatility, and for the builder of modest means, such machines deserve serious consideration.

Portable cranes are much more limited in range of operation and capacity than a mobile crane but on the other hand, they are less costly, quick to erect and are light and easy to transport and have proved themselves extremely useful in applications on sites where a high degree of mobility is not required.

Mobile Cranes

Unlike portable cranes, mobile cranes are able to travel with a load suspended from the crane hook, thereby considerably extending the operational range of the machine. Two types of mountings are in common use for mobile cranes; self-propelling mountings, on either crawler tracks or pneumatic tyres, in which the crane engine is utilised to propel the machine and propelling and steering are controlled from the crane cab, or alternatively, lorry mountings in which the lorry engine provides power for machine travelling, controlled from the lorry cab, whilst the crane engine powers only the craning functions.

Lorry mountings simplify transportation problems and permit rapid movement of the crane from one site to another, but the extra price of the special purpose carrier vehicle in addition to that of the crane, makes such machines very costly—more so, since during operation of the crane the lorry is largely out of use and serves no more useful purpose than as ballasting for the crane. Lorry mountings would appear, therefore, only to be justified where the duration of any job is short and where the crane is called upon to travel frequently over long distances and this type of mounting would, generally, be

of more value to the crane-hire contractor than to the builder.

Wheel-mounted cranes are not as manoeuvrable as crawler cranes, nor do they have the same ability to traverse and operate on soft unprepared ground without becoming stuck. However, such cranes readily permit travel along public roads at speeds of 10-15 m.p.h. and so can move easily between local jobs, whereas the crawler machine must be transported on a low-loading trailer.

Mobile cranes range in size from small 1-ton machines, fitted with 15ft. jibs, to large lorry-mounted 50-ton cranes which may be equipped with jibs of 140ft. in length or longer. Of greater practical and economical interest to the smaller firm of building contractors are those at the lower end of this range.

Such mobile cranes, with a maximum lifting capacity of 6-8 tons, may be either diesel-electric or diesel-mechanical in operation.

In the diesel-electric machines, electrical power is provided for the separate hoisting, slewing and travelling motors by a single direct current generator, driven by a diesel engine, whilst on the diesel-mechanical machines, the coupling of the various motions is accomplished by friction clutches; hence the term friction machine is often used to describe machines in this class.

Diesel-electric operation is often adopted for pneumatic tyre mounted mobile cranes and though this design avoids complex gear drives and chain drives, the cost of such machines is higher than for Friction Machines.

Provision is made in the design of some cranes to permit the length of the jib fitted to be varied according to the height of the building, but with a standard machine the low mounted jib must be 60-70ft. long in order to reach across a two- or three-storey building and place materials on the scaffolding at the rear.

With a shorter jib, or a taller or wider building, the machine may have to operate all round the building; a slow process involving excessive travelling and the need to keep a large area of the site clear to allow the crane to work. In addition the site may be badly cut up and in bad weather the crane may be unusable.

A typical crawler mounted friction machine, costing around £6,000, has a maximum lifting capacity of eight tons at 10ft. load radius with the basic 40ft. jib. Of greater significance to the builder, is the load which may be handled with a long jib at maximum radius and for the same machine a load of 10cwt. may be handled at a radius of 60ft. with the 70ft. maximum length jib fitted.

Long Jibs

When a long jib crane is used to reach the far wall of a multi-storey building, the machine must be set at a considerable distance from the near wall. This suggests while a long jib crane may be advantageous on a housing project, where room is available and the machine can be moved from location to location as work requires, a long jib crane cannot dominate a tall building, nor may it be practicable to use where road traffic or obstructions, such as other buildings, necessitate that the machine be positioned close to the wall of the building.

Nevertheless mobile cranes are extremely versatile, and when equipped with shorter jibs are capable of handling heavy and bulky loads. Also certain of these cranes are multi-purpose, or universal machines, which permit ready adaptation or replacement of the lifting crane equipment to allow alternative operation of the machine as an excavator, with a variety of digging equipments. Thus, a universal machine may be equipped initially with a digging

front-end and employed on a building site in the excavation for foundations, basements, services, etc., and subsequently may be rigged as a lifting crane and used for materials handling during construction of the building.

Tower Cranes

A more suitable machine for use in the construction of multi-storey buildings, is a crane with the jib mounted at the top of a tower, called a tower crane. Such an arrangement allows the crane to stand close to the building, occupying a minimum of space, and to reach all parts of the building with a much shorter job than is possible with a mobile crane.

For the purpose of making a comparison between the useful reaches, working areas and minimum operating loads of typical small rail-mounted tower cranes and mobile cranes, a building height of 30ft. has been assumed. On the tower crane, the height of the tower at the jib foot would be about 45ft. and length of the jib 46ft. When operating from one side of the building only, such cranes can cover a building width of about 35ft. To achieve the same coverage with a typical standard long-jib crane equipped with either a 70ft. jib, or a 50ft. jib with 20ft. fly-jib, entails the machine travelling round the building. Also, the total working area for the tower crane is about half that for the mobile crane.

Tower cranes originated in continental Western Europe because this was the first world area to adopt the general use of reinforced concrete for multi-storey buildings in place of the established steel frame construction method. Such changes, prompted by the introduction of a wide-scale reconstruction programme following the last war, coupled with labour shortages and a scarcity of steel, were accompanied by a host of problems. Not least of which were those associated with materials handling, and continental builders soon recognised that there was an obvious need for revolutionary handling methods if they were not to lose the advantages gained from reinforced concrete construction. And so, by trial and error and natural development, the modern tower crane was evolved. Having developed new construction techniques and materials handling methods for tall multi-storey structures, similar techniques were then applied to smaller buildings with equal success and for this class of work a range of scaled-down smaller tower cranes was developed.

Tower cranes are available in a wide range of models, produced by various manufacturers, and, though many design variations exist in these machines there are basically two main types of crane.

Two Basic Types

These two basic types are known as the French type and the German type, but these descriptions do not necessarily indicate the country of origin any more than is the case with the Scotch Derrick or the Yankee Boom. The names arise out of the original development of two distinct schools of design; one in France and the other in Germany. Both types of crane have a common origin and have been developed from the familiar small general purpose machine equipped with a mast and fixed jib. But from this point they differ basically in the method for varying the radius at which the load is carried, and, in the location of the slewing mechanism.

On German-developed cranes, the slewing mechanism is at the base of the tower and the platform, which carries the tower and jib and also the enclosed ballast tanks and machinery, rotates or slews relative to the undercarriage. The load hook is carried on one fall of rope passing over a pulley at the end of the jib and the radius at which the load is carried is varied by adjusting the angle of the jib. That is by luffing or derricking. Earlier designs adopted a fixed cantilever jib or adjustable angle which could be pre-set to give a required reach or height but the limitations of such an arrangement

were soon apparent and power luffing was introduced. More recently cantilever jibs have been replaced by power-luffing needle-type jibs, and rail mountings have become more elaborate to allow the crane to travel round curves of a small radius.

Cranes of French development adopt a horizontal jib which carries a traversing trolley or crab from which the hook descends, and the radius at which the load is carried is varied by moving the hook trolley along the jib, that is, by racking or traversing. Earlier models of the French crane incorporated a slewing tower, but in later crane designs a counterweighted jib, horizontally mounted on a slewing ring, is carried at the top of a non-rotating tower rigidly attached to the ballasted undercarriage and the jib and jib counterweight slew relative to the stationary tower. More recently, techniques for tower extending have been developed and introduced on cranes of this type.

Differing Features

In principle, the German type has the following features: A luffing needle-type jib fixed near the top of a revolving tapered tower with the hook on one fall of rope; a rotating tower; enclosed ballast tanks on the travelling carriage and at the bottom of the revolving superstructure; a travelling base normally designed to negotiate quite tight bends in curved rail track; and two or more control positions up the tower.

In principle, the French type crane has the following features: A horizontal jib with a travelling hook trolley, on two or more falls of rope, mounted on a slewing ring at the top of a tower; a non-rotating tower; a horizontal counter jib, about a third of the length of the main jib, which carries the exposed concrete counterweight and sometimes also the hoist machinery; a simple form of travelling carriage with exposed central concrete ballast; and one control cabin or a remote control unit.

With such differences in basic principle involved, it is obvious that there are advantages and disadvantages associated with the use of each type of crane.

The luffing jib design adopted on German cranes has the advantage that the jib can be raised quickly and easily to clear adjoining tall buildings or to avoid slewing over a street, but at short radii a long hoist rope is required, giving rise to greater swinging of the load. Moreover, unless special level luffing gear is provided, changing the radius will cause the load to rise or fall, unless the hoist and luffing controls are operated simultaneously. Generally on this type of crane the slewing ring is mounted at the bottom of the tower and, when the crane slews, the enclosed ballast box projects beyond the track so a German slewing-tower type crane cannot stand as close to a building as can a French crane. However, luffing jib cranes can be erected more simply and quickly than cranes on which the slewing gear and counterweight are carried aloft.

Provision is made on most French cranes to allow the non-rotating tower to be extended by the addition of tower sections, so as to match the height of the building under construction. An operating cabin may be fitted at any convenient position in the tower but more usually the crane is operated from a portable remote control unit at the end of a wandering lead and the operator may position himself at the most convenient point on the ground, or on the building, to observe the materials which the crane is handling. One of the features of horizontal jib cranes is that the height of the load remains the same as the radius is varied; however, the tower must be of sufficient height for the jib, or counterjib, to clear any obstructions. Certain designs of mobile rail-mounted cranes with non-rotating towers may be used, in the construction of taller buildings, with the tower attached to the building, or with the rail carriage removed as a climbing crane within the building. But more of this later.

It should be remembered, however, that many variations of tower crane designs exist, as well as certain cranes which combine features of both types, for there is a

choice of no fewer than 14 makes and 60 models available in this country. Most of these are of continental design and manufacture but there are now about a dozen different cranes, modified in design to meet domestic requirements, being made under licence in Great Britain.

In the same way that there are wide variations in the specification of tower cranes, so there is also wide variation in cost depending on capacity, design features, country of origin and quality. A suitable machine for smaller contract work on, say, three- or four-storey buildings, would lift a load of 10-12cwt. at 46ft. radius to a height of 50-60ft. and would cost around £3,500. Smaller machines with a lesser lifting capacity are available for about £2,000, but their functions and uses on a building site are more limited.

Mountings

In the simplest form of rail wheel undercarriage the cranes wheels are mounted on fixed axles with two wheels on one axle, driven by a single motor. Cranes fitted with this type of simple travelling gear cannot easily negotiate curves greater than about 200ft. in radius.

A very satisfactory, though more expensive, travelling gear for cranes which must travel frequently round curves, employs four pivoting two-wheel bogies, in which the wheels on one side have wide flanges to accommodate the effective variation in gauge which occurs on a bend. With this design, which requires two driving motors, the crane can negotiate curves of about 18ft. radius.

Whilst most tower cranes are rail-mounted, self-propelling machines which may travel with a load suspended from the hook, there is a growing tendency these days for cranes of the smaller type to be mounted on pneumatic tyres and equipped with outriggers or stabilisers, or alternatively to be mounted on a rail wheel mounting and provided with screw jacks, so that where the job permits, it is not even necessary to lay a track, providing the standing area of the crane is adequately prepared. A number of mobile tower cranes are also available on self-propelled crawler, or pneumatic-tyre mountings, or lorry mountings, but such machines are initially costly by comparison with rail-mounted tower cranes of the same capacity. However, road wheel mounted cranes may travel between sites under their own power and it may be economical to use such a machine on contracts of short duration for which the transportation and installation of a rail-mounted crane would not be justified by the amount of lifting work to be done. Crawler machines are of particular use on uneven and split-level sites where they are able to travel up and down a gradient between lifts thereby covering an area which would otherwise require two rail-mounted cranes.

Track

Rail-mounted cranes require a sound and level track but because of variation in ground conditions no hard and fast rules may be given for laying the track. But the importance of providing a good track for the crane cannot be over-emphasised, as a poor track is dangerous; it requires excessive maintenance; it wastes power and may overload the crane travel motors. In short, it represents a false economy. The track should essentially be level with no slope, in either direction, of greater gradient than 1 in 200. Adequate granular self-draining ballasting should be provided to transmit and distribute the rail loads, to provide drainage from beneath the sleepers and to permit accurate levelling of the track. These, however, are general remarks and special precautions may well be dictated by prevailing ground conditions on site. Manufacturers' recommendations should always be adopted if track troubles are to be avoided.

Climbing Crane

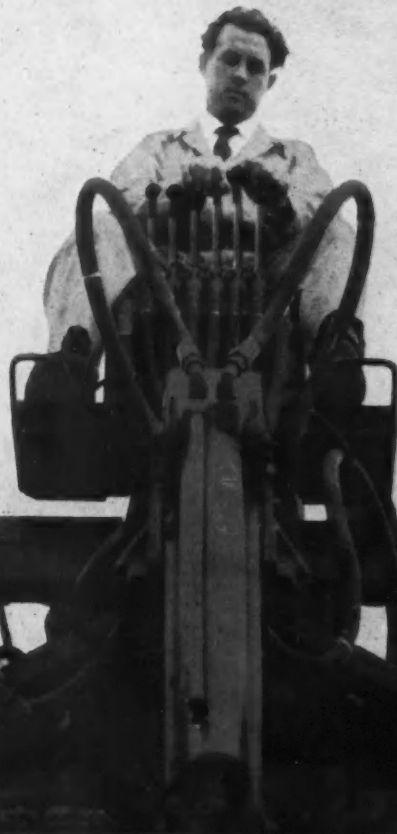
Closely related to both basic types of tower cranes is a more recently developed type known as the climbing crane, and although the class of work on which these

NOW!

**AN
EXCAVATOR**

ON THE

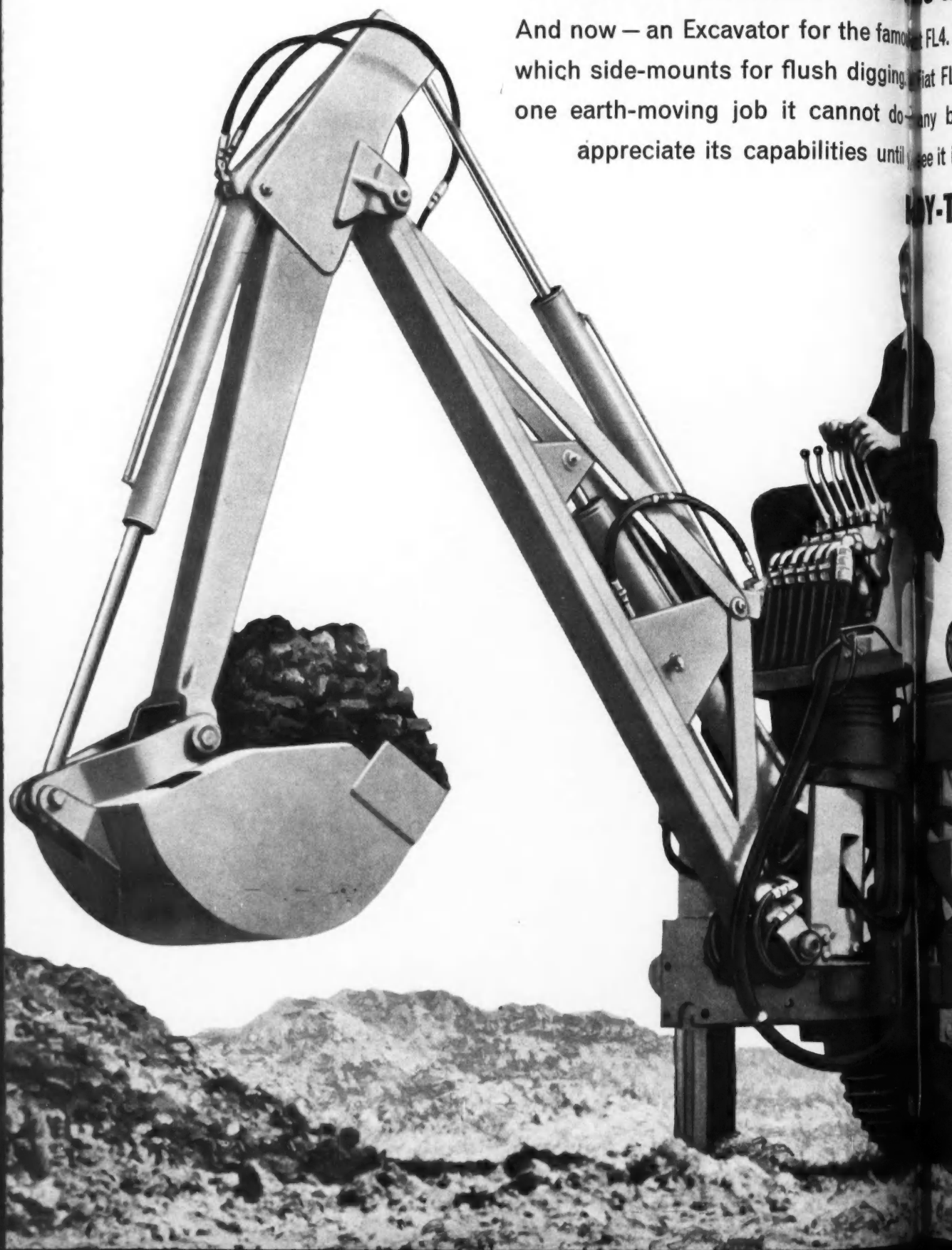
**FIAT
FL4**



ALL JOBS-ONLY

The one Machine

And now — an Excavator for the famous FL4, which side-mounts for flush digging. That FL4 one earth-moving job it cannot do — any body appreciate its capabilities until they see it.



MAN - ONE MACHINE

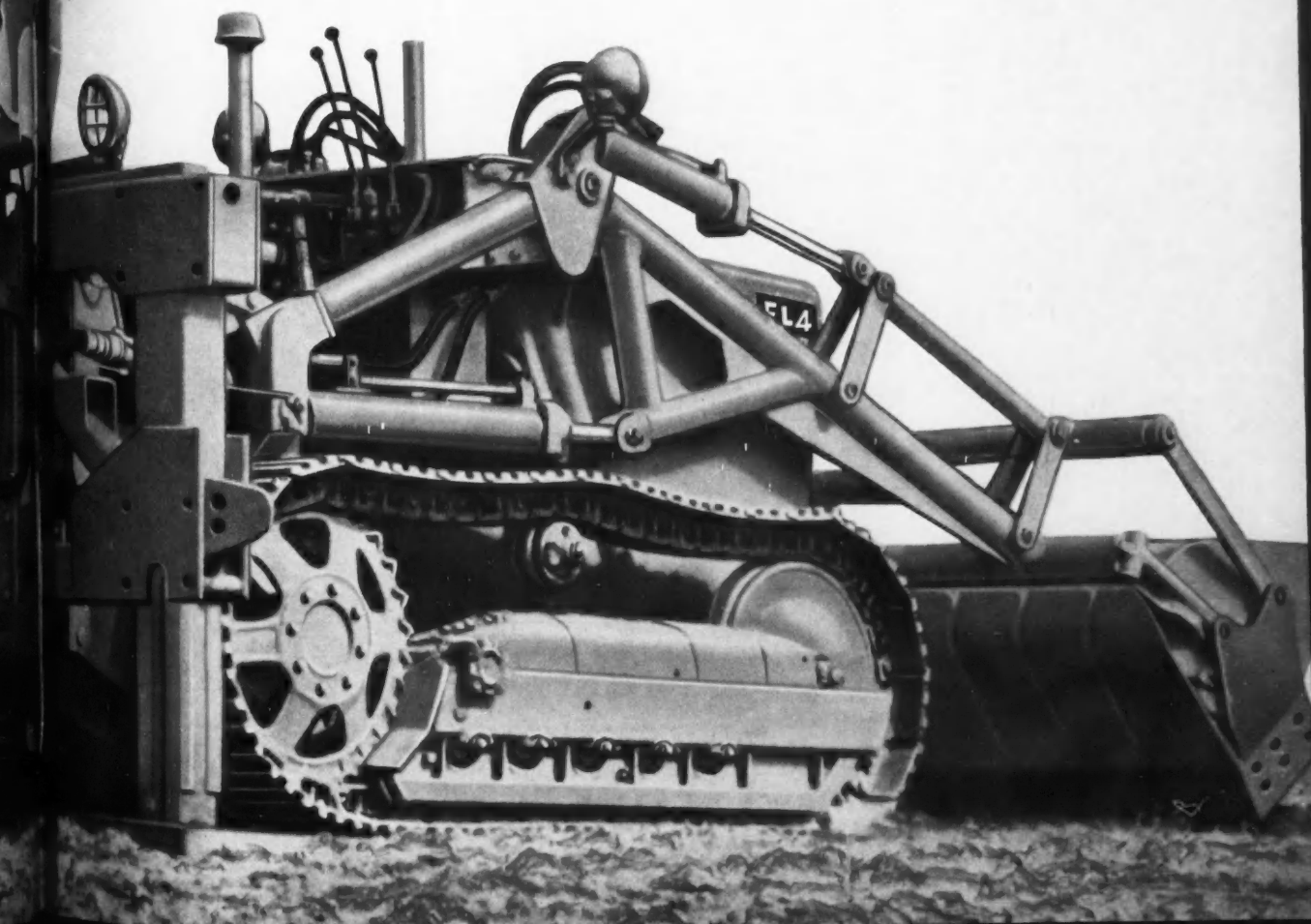
It does every job for the Builder

FL4. With 12 ft. digging depth . . . 200° working arc . . . and boom
 ing. That FL4 is the best-ever machine for builders, today. There's not
 do—any building site—under any conditions. You simply cannot
 until see it in action. Call Feltham 3435 for a demonstration today!

BUY-TO-GO AT

£3,545

COMPLETE WITH
 EXCAVATOR
 SHOVEL AND
 RIPPER



ALL JOBS ON ALL SITES

WITH THE

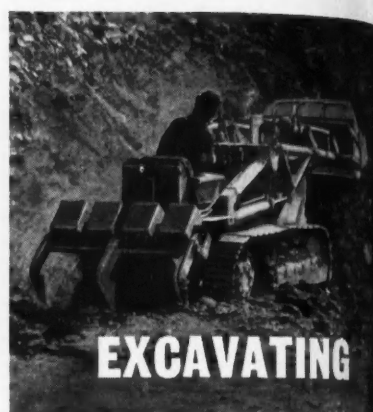
FIAT FL4



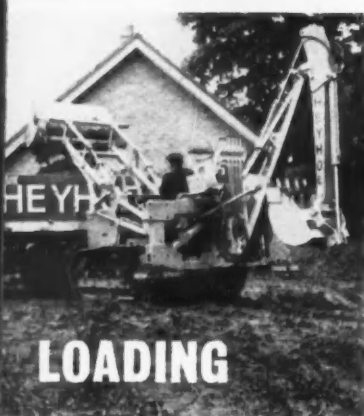
DOZING



LEVELLING



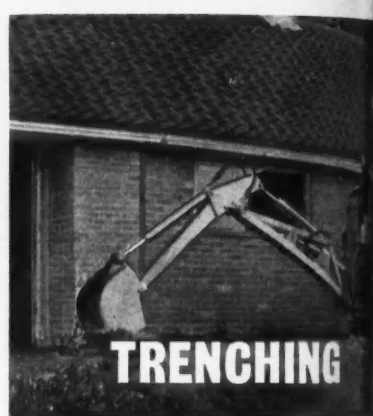
EXCAVATING



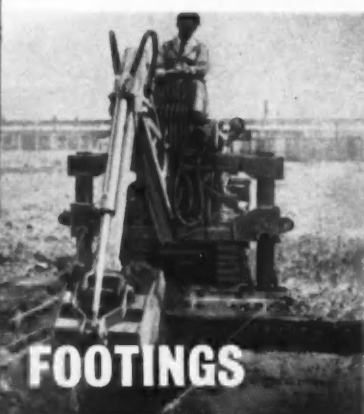
LOADING



RIPPING



TRENCHING



FOOTINGS



SITE CLEARING



SITE-CARRYING

MACKAY

of Feltham

MACKAY INDUSTRIAL EQUIPMENT LTD., CENTRAL WAY, FELTHAM, MIDDLESEX. (FELTHAM 500)

^{F28} South Wales Depot: Bridgend Industrial Trading Estate, Bridgend, Glamorgan Telephone: Bridgend 3986

Northern Depot: Wheatley Hall Road, Doncaster Telephone: Doncaster 66353

Distributors for Scotland: Scottish Land Development Corporation, 72 Dykehead Street, Queenslie, Glasgow E.3 Telephone: Shettleston 3048

Distributors for Northern Ireland: Northern Plant and Machinery Co. Ltd., Richmond Park, Finaghy, Belfast 10

cranes would be employed can hardly be included within the scope of this Paper, it is felt that some brief mention of them should be made, for certain tower cranes can also be used as climbers. At very little extra cost above that of the normal tower crane, therefore, a builder has a versatile machine that can be used for his two and three-storey work or for multi-storey construction up to virtually any height.

A climbing crane is supported by the floors of a building and, as successive floors are completed, a climbing winch lifts the crane to the next floor, so maintaining the necessary hook height clearance above the working level. In climbing, the crane utilises the floors of the building as extensions to its tower, rather than extending the tower itself.

Such cranes usually comprise a short non-rotating tower, which incorporates the climbing equipment and at the top of which is mounted the slewing mechanism carrying the jib, counterweight and machinery.

Normally a climbing crane is erected initially on a fixed base in a central location at foundation level and helps to erect the building around itself to a height of about 30ft. before starting to climb. Unless the crane is positioned in a lift well, holes are left in the floor slabs for the tower to pass through and special supporting guide frames are fitted round the tower for raising the crane up through the building as the work proceeds.

Crane Power and Control

Almost all tower cranes are electrically powered and normally separate slip-ring induction motors are provided for hoisting, slewing, travelling along the track and for varying the radius at which the load is carried. The hoist gearbox may incorporate provision for two hoisting speeds so that low speed may be selected for lifting heavier loads or for crane erection purposes.

Methods of control differ on tower cranes of various design and manufacture but almost all obtain speed control by variation of resistance in the rotor circuit of the motor. Hand-wheel-operated drum controllers, or remote push-button-operated controllers, may be used to obtain the resistance variation and so control the speed of a crane motion.

Electrical operation, whilst providing sensitive control of the various crane motions, requires a suitable 3-phase A.C. supply and unless such is available on site the builder will have to arrange for this, or will have to provide a diesel-alternator, to give the required power. Attempts have been made to develop diesel and diesel-electric rail-mounted tower cranes but these have had only limited success owing to the complexity of the gearing and drives and the expense of such units.

Transportation and Erection

Transportation and erection of tower cranes is not the problem one might think, for, in this one aspect of mechanisation the smaller firm has the advantage over the bigger one in that smaller cranes can be transported in a much greater condition of completeness than is possible with larger cranes. Furthermore, even when dismantled, the lightness of the structural parts of smaller cranes often makes it possible to man-handle the jib and mast elements during erection.

Some cranes can be supplied with road wheels for attaching to the base, so that when the jib and mast are lowered they form a draw-bar between the towing vehicle and the crane under-carriage, but such practice has its limitations and hazards and may not comply with road regulations. A safer and faster method of transportation over longer distances is with the jib and mast removed and carried on one vehicle and with the undercarriage machinery unit either carried or towed by a second vehicle.

On the small tyre-mounted crane the jib pivots about its heel and the mast about its foot, so that the mast and jib fold up like a jack-knife on to the top of the machinery house and ballast box. Such

an arrangement readily allows the crane to be towed safely between sites.

Cranes of these types are called self-erecting cranes in that the crane is fully assembled at ground level and may be quickly and easily erected by simply raising the jib and mast to the working position by means of the crane machinery.

Erection operations of this type can be carried out in most cases by ordinary site personnel but on cranes involving more complicated methods, it is absolutely essential that skilled erectors be employed. Different erection techniques are used for cranes on which the slewing gear is carried aloft and these vary from machine to machine. The general method, known as "stacking-up", involves assembling tower sections, 9ft. to 12ft. in length, on top of each other up to the desired tower height either by using a small auxiliary jib which is raised as the tower increases in height, or a long jib mobile crane.

When this system is employed, the tower crane jib is normally attached or raised after the tower has been erected, but there are cranes which incorporate patent tower extending systems which allow the jib to be assembled on the tower at ground level and then to be raised as the tower is extended. The slewing gear and jib are mounted on a short mast section which fits within, and is supported by the tower. Provision is made for the mast to be raised within the tower so that an additional open-sided tower section may be added at the top of the tower. This section is bolted up and the inner mast re-anchored on this section preparatory to raising the mast for the next tower section, and so on.

Just as there can be few hard and fast rules about methods of erection, so there can also be no set figures for the time taken, or for the cost of erection, as the site conditions under which erection takes place are the governing factors.

Safety

A contractor using a crane on a building site has to comply with a number of statutory regulations laid down in the Factories Act: Building (Safety, Health and Welfare) Regulations. These regulations do not specify crane construction in detail, but provide for safety requirements, examination and testing of a crane. However, a greater awareness of basic safety principles, than just the minimum adherence to the regulations, is required if complete safety is to be achieved.

As a guide to the prospective buyer as to what to look for in a tower crane, British Standard Specification No. 2799 recommends the basic structural, mechanical and electrical requirements for safe design of tower cranes and though this standard has no legal force, it is used by most leading insurance companies as a design "rule of thumb" when assessing the premium for insurance purposes. Whilst it is possible to insure a tower crane under certain circumstances, even when it does not comply with the British Standard Specification, it is far easier and cheaper to do so when the design does comply in all respects.

Accident Causes

The commonest causes of accidents involving tower cranes are not just due to the outright disregard of regulations, but also to the misuse or abuse of the machine in some simple but dangerous way, such as the following:

Using the machine immediately erection is completed without proper load test, or without even a full visual inspection being carried out to ensure that stabiliser jacks are down and all bolts, rope-dogs and other fittings are complete and secure.

Deliberately overloading the machine by lifting loads in excess of the safe working load and depending on the overload test margin for safety.

Lifting loads of unknown weight.

Isolating cut-outs in order to make the crane reach that little bit farther or higher than it is designed to do.

Dragging loads at an angle to the jib head pulley, either ahead of the crane or to one side of it.

Using slings or lifting appliances of

unknown or unmarked lifting capacity. Ignoring built-in warning devices.

Short cutting recommended erection and dismantling procedures.

Using untrained drivers or allowing too many people to give the driver instructions.

Failing to carry out simple preventive maintenance.

Badly designed, wrongly laid and ill-maintained rail track.

It may be worth mentioning that industrial safety courses are run at a number of centres in this country; these groups being affiliated to the Royal Society for the Prevention of Accidents (RoSPA), and at these, all types of machine operators and users can receive expert instruction and guidance.

Conclusions

No other machine has had more influence on the pattern of materials handling in construction work than the tower crane, and for the single-purpose handling of relatively light loads at extremes of height and radius, this type of crane is without equal.

It should not be believed, however, that this Paper infers that the tower crane is a must for all smaller building works, nor that the simple purchase of a tower crane will automatically open the door to greater productivity and reduced costs. For although the tower crane is unquestionably one of the most useful machines on site, it is also costly and its true value can only be realised when it is correctly programmed into a comprehensive working site scheme of operations and fully employed within the framework of that programme.

Should a builder feel unable to invest such a sum in capital equipment, it is possible and commonplace nowadays to take advantage of the facilities offered by the many reputable and reliable plant hire organisations. No only can the builder benefit from the expert advice and accumulated knowledge of such companies, but he will get the opportunity to try out a machine on his own jobs and gain experience in its use and application at very little cost.

In all examinations of the productivity of tower cranes, the question of a trained and competent driver is of paramount importance. Any machine is only as productive as the man at the controls makes it. Quite apart from an ability to operate the crane, service it and take care of minor breakdowns, the good crane driver should have an overall knowledge of the day to day working programme, so that he can carry out his key job in a way which allows the craftsmen to give their maximum output at all times.

Lastly, it is important to dismiss the idea that a tower crane will reduce the labour force on a site. Correctly and fully used, a tower crane will probably result in more men being needed, but overall the number of man hours on each job will be reduced so that the contractor would be able to complete say, six contracts in the time normally expended on five—and therein lies the extra profit.

£200,000 POWER CABLE CONTRACT

British Insulated Callender's Cables, Ltd., have received a contract valued at approximately £200,000 from the Trinidad and Tobago Electricity Commission, Port of Spain, Trinidad, to manufacture and install 24 statute miles of submarine gas filled power cable together with terminations and accessories.

This cable will provide Tobago with a 33-kV alternating current supply from the transmission system in Trinidad. A three-core cable will be used. The rated load capacity of the circuit will be 12 megawatts.

The manufacture of the cable will be undertaken by British Insulated Callender's (Submarine Cables), Ltd., at Trafford Park, Manchester, and the installation by British Insulated Callender's Construction Co., Ltd.



Finishing off part of the shell roof

COMMONWEALTH INSTITUTE "TOPPED OUT" AT KENSINGTON

"Tent"-Roofed Building Ready
Next Summer



General view of the site from the west side

In order that the new Commonwealth Institute building in Holland Park, Kensington, should be "topped out" in the traditional manner—the ceremony was performed last week by Sir James Robertson, chairman of the Governors—a special scaffold-supported platform was perched high above one of the two apexes of the building's "tent" roof.

This unusual roof, consisting of five hyperbolic paraboloids, is the feature of the development and covers an area 190ft. by 190ft. Yet it weighs only about 20lb. per sq. ft. and has only four supports—two internal columns placed east and west and two external columns at the north and south. Its construction is a mesh of precast post-tensioned concrete ribs, decked with wood-wool slabs. The whole is to be covered in copper sheet.

Internally the columns, which are in situ, rise vertically to first-floor level and then slope at a 52-degree pitch from the horizontal. They will have jacking heads built up by steel plates, steel wedges and steel backing plates.

At present the roof is supported by scaffolding, but when it is completed sometime during next month, a two-day operation is planned to lift the entire structure by means of 170-ton Freyssinet oblong flat jacks and distribute its weight on to the tops of the two internal columns.

The external in-situ columns are peg-shaped, having a forked base. They stand on special reinforced concrete foundations and slope from the ground at an angle of 65 degrees.

The central roof paraboloid covers an area of 90ft. by 90ft. and for its construction 100,000ft. of scaffolding to make a birdcage scaffold to support the formwork was erected. Rough sawn boarding was placed on the formwork to give a textured finish to the concrete. The 3in. concrete shell was then cast in situ.

The other four paraboloids are formed by warps on the perimeter of the central one. These consist of precast concrete beams set on cast in-situ lattice beams at the edge of the inner paraboloid and on the duct beams of the outside edge of the building. The wood-wool slabs with reinforced edges are placed on top of the precast beams.

Exhibition Hall

Two tower cranes were used for the construction of the roof, which covers the Institute's main exhibition hall. Inside the hall the main approach will be by means of a ramp to a central platform built up from the ground. Two sets of staircases will lead from the platform to a circular gallery at first-floor level, this being about 50ft. in width. More stairs lead to a 30ft. wide gallery at second floor level.

The three gallery floors beneath the roof are pierced to form a large central well under the central paraboloid. This bowl-like space will unite the gallery floors and permit long diagonal views of the curving roof planes, the slim concrete ribs of which will catch some light from concealed clerestory windows. It will be possible to enjoy these views over the well from each floor level.

Ground to first floor walls are of load-bearing brickwork and the second floor is supported by concrete columns and concrete structural ducts around the perimeter. The first and second floors are of 12in. thick heavily reinforced concrete.

Internally the walls are finished with Thermalite and externally they will be clad with coloured glass curtain walling. There is a 2ft. 6in. space between the cladding and the internal wall to provide for artificial lighting.

The building will be fully air-conditioned and will be heated by warm air flowing in round the edges and being sucked down into the centre.

Ancillary Blocks

Two linked ancillary blocks are being built on the western side of the main exhibition hall. The southern block has four floors and contains administrative

offices, a restaurant, school reception areas, a Commonwealth lounge and boardroom, a library, a director's flat and stores in the basement.

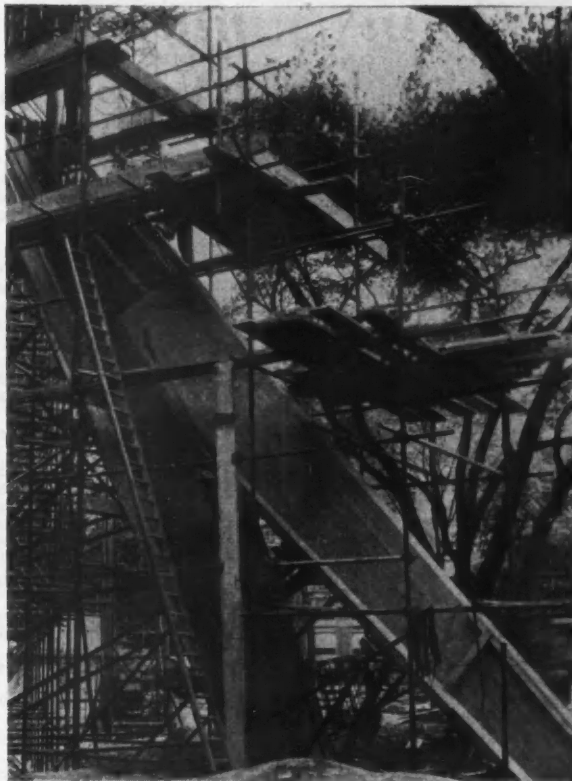
The northern block, on two floors, contains an art gallery and a cinema to seat 450. The art gallery, on the first floor, is a single room, 95ft. by 45ft. by 13ft., with top lighting, sub-divisible into smaller spaces by a system of flexible screens.

The two-storey block measures 45ft. x 365ft., and provides 30,000 sq. ft. on its two floors, while the southern block has 15,000 sq. ft. of floor space. Beneath most of the buildings are 20,000 sq. ft. of stores and workshops.

Both blocks are reinforced concrete structures, clad partly in precast concrete panels and partly in glass walling. Floors are of reinforced concrete and external columns are black with a bush-hammered finish.

The layout of the 3½-acre site maintains as far as possible the open character of the park. Car parking is provided on the western side of the site and all vehicular traffic will be confined to the western side of the buildings to preserve the dignified frontage to the south. The pedestrian will walk across a paved lower court and then, under the existing trees, past lawns and fountains up to the main entrance. A covered approach will be provided for wet weather.

The buildings are expected to be com-



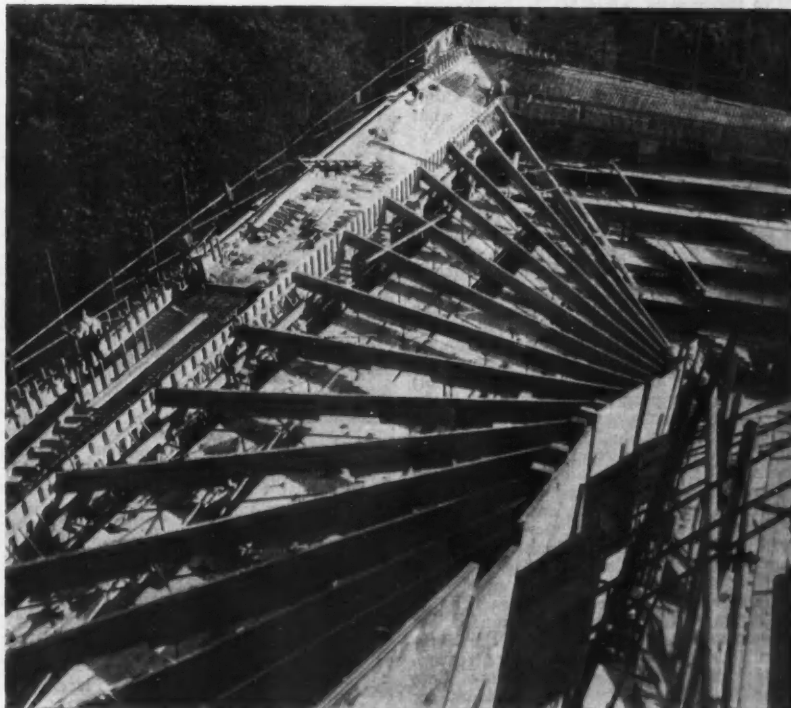
North strut to main roof under construction

pleted in the late summer of next year.

Contractors and Consultants

The main contractors on the scheme are John Laing Construction, Ltd. The design is by Robert Matthew, Johnson Marshall and Partners, with A. J. and J. D. Harris acting as structural consultants.

Other consultants include: C. Mackechnie Jarvis and Partners, electrical; Franklin and Andrews, quantity surveyors; L. J. Fowler, heating and ventilating; and James Gardner, C.B.E., exhibition designer.



North east warp, showing precast concrete beams in position and concreting to eaves overhang in progress

John Sumner's Notebook . . .

THE last thing I want to do is stir up any more trouble about the tea break business. The whole country seems to have settled down pretty well since the Joint Executives' statement. It would be a mistake, however, for the managements of building firms to imagine that they have borne the brunt of the trouble and strife initiated by the "comrades."

The man who has done this and knows most about their tricks is Mr. James Mills, the President of the National Federation of Building Trades Operatives. Building firms as well as trade unionists owe him a great deal. Since October he has been stumping round the country addressing mass meetings after mass meetings (that's what they're called, though some have been so disappointingly supported that Mr. Mills could scarcely have considered his journey worthwhile). Many of those who have attended the meetings made it plain enough at the start of proceedings that they wanted to make life as unpleasant as they could for him—to have his guts for garters, as one Wolverhampton worthy colourfully put it—because of the fine old mess they reckoned he and his colleagues at the N.F.B.T.O. had made of their tea breaks. No mention of the 6d. an hour increase or shorter working week, mind you.

These threats had just about as much effect on Mr. Mills as does water on the proverbial duck's back; he sent his audiences away wondering what in heaven's name they had been complaining about. Not the least powerful item in his armoury has been his incredible ability to distinguish among his audience those who are well-intentioned trade unionists genuinely seeking guidance and enlightenment. Time after time trouble-makers at the meetings have asked their questions and got their answers only to wonder how on earth the president of the N.F.B.T.O. had found out who they were and what they were. I know; but wild horses would not drag the information from me.

In the process, while Mr. Harry Weaver, the Secretary of the N.F.B.T.O., cheerfully shoulders the burden of being "the Chief Catering Officer," as he puts it, for the building operatives, Mr. Mills and his colleagues have given the building Communists a mighty clobbering. And, what is more, they know it.

Towards Amalgamation

AS we are on the subject of trade unionism let us now turn our attention to some comments made the other day by Mr. Albert Baxter, a member of the Executive of the National Society of Painters, at Burton. His society was founded nearly 100 years ago under the title of the Manchester Alliance of House Painters. There had been previous attempts to organise the painters but apathy (still the enemy of the trade union movement) prevented any progress being made. However, the Manchester movement grew in strength and eventually the national body was formed. More recently attempts have been made to achieve unity on an even wider basis and negotiations have taken place between the society and the Scottish Painters Society with a view to amalgamating the two unions. These negotiations have just reached a more positive stage and a deed of transfer has now been agreed. Soon the members of each union will vote on the question of fusion. There have also been negotiations with the Liverpool local societies and there is a reasonable hope that in the near future there will be only one union of painters for England, Scotland, Ireland and Wales. The ambitions of the National Society of Painters do not stop there; for long they

have been, as Mr. Baxter pointed out, whole-hearted believers in one union for the building industry and in his Burton speech the other evening he extended an invitation to the other unions to help them in their efforts to establish one craft union, representative of all the building crafts, in the industry.

This movement towards amalgamation and closer unity in the unions, and it is already happening behind the scenes, is bound to have great influence on the employers' side of the industry. This has been in a state of self-satisfied but helpless fragmentation for far too long and I am not alone in wondering why so many "top" men in impotent and unimportant trade federations are so long in appreciating that the presidential chain is, in the ultimate, less important than the establishment of a strong, truly representative body for builders and contractors. History looks like repeating itself. The unions brought the employers' organisations into being; amalgamation of the unions may well bring about the amalgamation of the bodies representing employers.

On Way Out?

HOWEVER popular or unpopular the Government may be among the various sections, or should I say factions, of the community, it continues to have a strong, irreplaceable ally in the building industry. While ministers use platform after platform exhorting everybody to produce and export more, the building industry continues to be the pacemaker. And by the building industry I mean the contracting side—for in this sphere alone is the effort being made.

How does the Government respond to this support? Not very well, I fear. If you want an example, let us look at firm-price tendering. It was the Government, remember, which called for a return to firm-price tendering a few years ago and although the contractors had considerable misgivings and doubts about the wisdom of returning to firm prices so quickly, they displayed their anxiety to help the Government in every way possible by agreeing to play. They knew that by so doing they would be playing a big part in the business of stabilising the economy and helping to keep prices steady. The loyalty of the building contractors since then has been something to wonder at. But now they are finding that the firm prices' shoe is not merely pinching their toes, it is crushing their feet. Why? There is only one reason, and it is that while contractors are continuing to submit firm prices, they are getting precious little support from those who supply the materials, on which most of those prices have to be based. One begins to wonder whether the attitude of manufacturers and suppliers is due not so much to unwillingness to co-operate as to their utter inability to run their businesses really efficiently and to forecast accurately.

I detect more than a measure of disquiet among contractors on this issue, and I should not be surprised if before long the Minister of Works is told that so far as firm-price tendering is concerned they have—to use the war-time expression—"had it."

A few weeks ago Mr. P. E. Trench, the Director of the N.F.B.T.E., put forward the idea that makers and merchants should submit their names to a list if they were prepared to quote firm prices. Bearing in mind the number of firms in this category, the number on the list so far is ridiculously small.

Support from Portland Place

SUPPORT for the N.F.B.T.E.'s proposal for a building industry economic and planning council has come from the

President of the R.I.B.A., Sir William Holford. Welcoming the idea in a speech last week at the R.I.C.S. Quantity Surveyors' Annual Dinner he said the proposed council should be made representative of the whole of the industry. This support will be welcomed by the builders as I gather the idea has not been received too enthusiastically by some sections of the construction industry. Incidentally, the many sections of the industry were well represented among the 530 guests attending the dinner. With over 1,000 present the ratio of members to guests was approximately 1:1 which says much for the support given to the dinner by members. The large gathering was presided over by Mr. J. C. Osborne, chairman of the Quantity Surveyors' Committee. The guests were welcomed by Mr. William James, the responses being made by Sir William Holford, and the Bishop of Coventry, the Rt. Rev. C. K. N. Bardsley. I am happy to say that the speeches, of not too long a duration, exactly fitted the occasion and helped towards making a very pleasant evening for the Q.S.s and their friends.

REVALUATION: FIRST POINTERS SOON

Dr. Charles Hill, Minister of Housing and Local Government, expects to have a fairly accurate indication by the beginning of 1962 of changes in the relative proportions of the total rate burden borne by houses, industry, shops, offices and other property.

The relationship between these sources of rate revenue will change completely with the present revaluation which, for the first time since 1934, assesses all property at current rental values. The new valuation lists resulting from it will come into force on April 1, 1963.

At present houses are assessed on 1939 rental values; shops and offices pay on 80 per cent. of 1956 values; and industry and freight-transport pay on 50 per cent. of 1956 values.

After the 1963 revaluation, which assesses all rateable property in England and Wales at current values, industry, shops and offices will pay full rates. But in case the burden on householders becomes too heavy because the basis of their valuation has been advanced by 24 years in one step, the Minister has taken powers in the Rating and Valuation Act, 1961, to derate dwellings for the five years 1963-1968.

He told local authorities in England and Wales in a circular issued last week that when he knows the extent of the changes in the proportions of rate burden borne by the various types of property he will decide whether it is necessary to derate dwellings. In making this decision he will take into account any changes proposed to be made in the scales of deduction for repairs.

SCUNTHORPE SHOPPING PARADE DEVELOPMENT

The Venture Property and Development Co., Ltd., London, S.W.1, have recently completed the purchase of the Pavilion Cinema, Doncaster Road, Scunthorpe.

The site, which also includes garage premises, has a frontage to Doncaster Road of some 210ft. and will be developed as a supermarket and a parade of nine shops.

Demolition of the existing buildings is being carried out by Messrs. Grant, Lyon and Co., Ltd., Scunthorpe.

Obituary

It is with regret that *The Contract Journal* records the death of the following:

Mr. Edwin Gregory, a director of Edgar Allen and Co., Ltd., for 15 years, and chief metallurgist from 1944 until his retirement from executive duties in March 1961.

Mr. William Harriman Moss, chairman of William Moss and Sons, Ltd. He had been connected with the company for over 50 years.

LENGTHENING OF PLATFORMS AT BLACKFRIARS STATION

Difficulties of Confined Space Working

WORKING under temporary decking from a site which on the surface is only 20yd. square is one of the difficulties being overcome in the present scheme for altering the sub-surface Underground station at Blackfriars, London, E.C.4, for London Transport.

The scheme, some details of which were given in a recent issue of *The Contract Journal*, provides for increasing the length of the platforms by 74ft. so that passengers will no longer have to use the narrow "cat-walks" at the ends of the platforms. This task includes the demolition of the existing running tunnel and the construction of a new wider covered way for the platform extensions. It also involves the bridging of the Fleet, and the replacement section by section, at night when road traffic is at its lightest, of the roadway at the busy junction of Blackfriars Bridge and Queen Victoria Street.

The soil along the Thames Embankment is very largely made-up ground and mud. When the line was built in the second half of the 19th century, as much as 24ft. of

ruins of former buildings and debris going back perhaps two thousand years had to be cut through in places, and at Blackfriars the original foundations had to be carried down to 13ft. below rail level.

The general construction of the original covered way for the line along this stretch consists of brick walls and an arch with a concrete invert, the covered way being wider at the station with girders to support buildings. The Southern Region railway and station are carried over the Underground station on a large viaduct.

Platform extension work was started by diverting a large route of trunk telephone cables and other G.P.O. equipment, and then by excavating trenches 30ft. deep and 8ft. wide on the outside of the existing tunnel walls from headings below the temporary street decking. This was followed by sinking bored piles down a further 60ft. from the bottom of the trenches to support



A beam being lowered over fixing bolts on top of the column. The wooden block on the column allows lining-up of the faces before final positioning

reinforced concrete bases for the new structure. The clay line at this point is at 29ft. (Newlyn Ordnance datum), or about 32ft. below rail level. On these bases 18 seven-ton tapered pre-cast concrete columns, nine on each side, are being erected to support new roof beams. The columns are slotted at the sides to take pre-cast wall slabs and the space behind the slabs is being filled by a mass concrete backing.

19-ton Beams

The tops of the columns have an angular profile which mates with pre-cast reinforced concrete beams, each weighing 19 tons, which support the roadway above and form the roof of the extended station below, and the beams are being lowered into position at night after a section of the roadway above has been removed. This is an operation requiring two cranes and must be carried out with precision and with careful timing, as the roadway above must be reinstated temporarily so that the heavy morning traffic is not obstructed. The placing of one beam is a whole night's work. Eventually the beams will be covered by a 12in. reinforced concrete slab which will form the support for the roadway.

About half of the new platform extension lies above the Fleet sewer, the sewer being taken under the line in two brick channels with flat cast-iron tops. On the north side there is an arched bellmouth to the sewer, and on the south side it runs to an outlet into the River Thames. Over the length of the sewer, the vertical columns are carried on two reinforced concrete beams spanning both sewer channels, with new reinforced concrete cut-off walls to close off the exposed upper sections of the sewer tunnels, which are of larger section than the channels below the tracks.

The Fleet gave considerable concern when the railway was originally built. It had to be diverted and re-diverted many times and for a period had to be carried beneath the railway by a syphon. Although the present work has not required such extreme measures, the Fleet has still constituted a problem.

A further complication is the presence of a large pipe subway running very near, (Concluded on next page)



Interior view of a completed bay with roof slab above

In Parliament**SCOTTISH HOUSING BILL DESIGNED TO ENCOURAGE PRIVATE BUILDERS**

THE Secretary of State for Scotland, Mr. John MacLay, said in the Commons last week that between 1945 and 1960 only 10 per cent. of houses built in Scotland, compared with 36 per cent. south of the border, were erected by private enterprise.

The rate had been increasing, but the proportion was still inadequate. Most disappointing has been the virtually complete lack of private building for letting, which meant that many people who were unable, or did not want to buy their own houses, were not having their needs satisfied.

Mr. MacLay, who was moving the second reading of the Housing (Scotland) Bill, added that more people were able and wanted to purchase their own houses, or were able to pay economic rents for houses. Local authorities had to adjust themselves to this change. Housing should not become the monopoly of a local authority, or of any other single agency.

If private enterprise was able to satisfy the demand for unsubsidised houses, then local authorities would be better able to provide subsidised houses for those who needed them. They would also be free to tackle problems of slum clearance, over-spill, and so on. But, no matter how hard they tried to solve Scotland's housing problem, they would fall short until rents charged for local authority houses reached a more reasonable level.

The new subsidy structure in the Bill was designed to give increased assistance to those local authorities most heavily burdened, either because they had to build

more houses or because their houses cost more to build.

The Secretary of State explained that if, as a result of continual building, an authority outstripped its resources it would be able to move up from a lower subsidy to a higher one.

The provision to advance up to £3m. to housing associations which undertook to build houses for letting at unsubsidised rents was an experiment. He hoped it would prove a success and encourage private builders to re-enter the field of building for letting.

Motorways (Construction)

Mr. du Cann asked the Minister of Transport whether, in order to expedite the construction of cross country long-distance motorways, he would authorise that such roads in future be developed by private enterprise and local authorities jointly, the capital required being serviced by tolls, in cases where the necessary finance is forthcoming.

Mr. Marples: This is an interesting suggestion. Legislation would be needed to enable tolls to be charged. I feel sure, too, that Parliament would wish to consider very carefully any proposal to allow local authorities to use for the profit of private interests and powers given them to construct motorways, including the right to acquire land compulsorily and to close private accesses. In any case, it is doubtful if proposals on these lines would expedite the provision of long-distance motorways, in view of the extent to which civil engineering resources are already very heavily committed.

Mr. du Cann: While appreciating that

much has and is being done now for new road construction, may I ask my right hon. Friend whether he agrees that it is absolutely clear that much more needs to be done? If the limiting factor of additional new road construction is the amount of capital which can be provided, surely it would be just as well to get this new capital from any source that may be available. Would the Minister keep this matter under consideration and perhaps take the view that the right responsibility of government is to build new roads in the cities and for private enterprise to build outside them?

Mr. Marples: I will certainly keep this under consideration, as we are doing. The limiting factor is not so much cash, as it were, but the resources of the industry, especially skilled men. What has disturbed me a lot recently is the reduced number of bids that we get when we put out schemes to tender. Also, the prices are higher, which indicates that the resources of the industry are strained to the utmost.

Channel Tunnel

Questioned by a number of Members, Mr. Marples said that he had had useful discussion about a Channel link on November 17 with the French Minister of Public Works and Transport, and had reached agreement with him about the next steps to be taken on the proposals now before the two Governments for the construction of a tunnel or a bridge. Many aspects of these projects required further joint study, and this was to be undertaken by officials of both countries.

Mr. Teeling: Will my right hon. Friend bear in mind that for nearly three years a study group has been working on this, largely started by pressure from a Parliamentary Committee of over 100 members? That study group has already spent over £4m. on the possibilities of either a Channel tunnel or a Channel bridge and, having worked it out, has decided that a bridge is not possible. In the circumstances, would my right hon. Friend try to use what information has already been obtained by the Committee, and save a lot of time and trouble?

Mr. Marples: The information given by the Committee will certainly be used by the joint study group—information given on the tunnel—but a lot of questions will be asked on separate aspects—the legal aspect, the economic aspect, the financial aspect, and so on. But it would be wrong if we omitted from our considerations and calculations evidence presented to us only in October on a Channel bridge. There, again, many detailed considerations will have to be gone into.

(Concluded from previous page)

and at a slight angle to, the new walls. The pipe subway encroaches on the space required for the columns at the extreme west end on the north side, so that the westernmost column has had to be mounted out of line with the other eight columns on that side. At this point the pipe subway falls to pass under a pedestrian subway which, after running parallel to it for some distance, turns over it and the railway to give access to the Victoria Embankment. All this work has been done without interruption to the train service or to road traffic above.

When the new work has been completed,

the existing tunnel, which will then lie inside the new station section, will be demolished except for the lower sections of the brick walls. These will be levelled and left in situ to form the base of the new platform extensions.

Designers and Contractors

The whole of the work, which is costing £140,000, is expected to be completed early in 1962, and was designed and is supervised by the Executive's New Works Department to the requirements of Mr. C. E. Dunton, M.A., M.I.C.E., Chief Civil Engineer, London Transport. The contractors are Mitchell Brothers, Sons and Co., Ltd., Victoria Street, London, S.W.1.



Precast column (left) being lowered by mobile crane, and (right) completed column and beam assembly

INSTITUTE OF PUBLIC CLEANSING**Delegates Visit Liverpool Land Reclamation Scheme**

Liverpool Corporation's Otterspool land reclamation scheme was the showpiece for delegates from all parts of the country, attending the autumn meeting of the Institute of Public Cleansing held last week in Liverpool.

Before seeing for themselves how controlled tipping of refuse has reclaimed land on the foreshore of the Mersey Estuary at Otterspool, the delegates heard a Paper on the scheme presented by Mr. C. W. Sanderson, cleansing superintendent of Liverpool.

The first part of this scheme, with gardens and riverside promenade with playing fields, was opened to the public in 1950. It is extensively used and has been visited and admired by people from all over the world. In 20 years, 2,500,000 tons of refuse were tipped on this site.

The river wall has now been extended for nearly a mile to enclose a further 70 acres of foreshore and provide tipping space for another 4,000,000 tons of refuse. After tipping and settlement, the area will be laid out to provide further facilities for public gardens and playing fields, and a riverside promenade two miles long.

UNUSUAL REINFORCED CONCRETE DESIGN FOR LOS ANGELES BUILDING

CONCRETE has been used both functionally and aesthetically in a 13-storey building completed earlier this year at Wilshire Boulevard, Los Angeles, for the American Cement Corporation. Constructed throughout of reinforced concrete, the building, which contains 122,000 sq. ft. of office space, 100,000 sq. ft. of parking space, and 10,000 sq. ft. of commercial and lobby space, includes a nine-storey tower block, in which the weight of the tower floors is borne by the central core and outer wall.

Structural Change

A main feature of the building is a transition platform between the fourth and fifth floors, making possible a structural change in function from accommodating people to housing cars.

The 8ft. - deep transition floor consists of a system of longitudinal and transverse girders which transfer the load of the building from the exterior walls to eight concrete columns which extend all the way to the foundation of the building.

Thus, the column-free tower furnishes suitable office space while the column spacing in levels from the third floor to the basement furnishes space best suited for cars. The transition floor also houses all of the building's air circulating equipment in a central location.

Another feature of the building is the concrete grill that covers the two wider sides of the tower. Consisting of X-shaped reinforced concrete units, this grill combines decorative appeal with the structural function of resisting both vertical and lateral loads.

The use of these X members is believed to be the first known employment of sculptural diagonal posts in a load-bearing grill. Clay studies of the members were first made by the sculptor, Malcolm Leland, after which a full-size X panel was constructed by hand. When contours had been refined to the required dimensions,

10 fibreglass-lined moulds were constructed, and the 450 X members were poured in the yard of the contractor.

Each member, weighing approximately two tons and one storey tall, was hoisted into position by a tower crane in a matter of minutes, and then welded and grouted into place.

Construction Techniques

The tower employs several techniques of construction which are unusual in that

floor, and all elements tied together by means of the poured-in-place floor slab.

Other methods of fabrication for the concrete used in the building included in-situ pouring, using wooden forms, and in-situ pouring with plastic-faced wooden forms to produce a textured effect.

At the fourth floor level, set in a landscaped garden terrace, there is a separate executive office structure with glass walls under a folded-plate in-situ poured concrete roof.

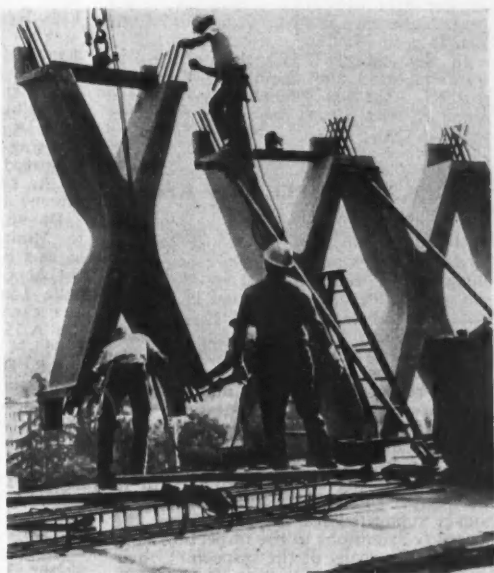
Soils underlying the site are unusually firm and impermeable.

The foundations for the base structure and tower are machine excavated, belled caissons, about 25ft. deep and 23ft. in diameter at the widest point. Filled with reinforcing steel and about 80 tons of concrete, they support the main columns. The central core of the tower is supported by a deep mat foundation.

One of four levels of parking within the building is accommodated in the basement. A deeper basement was discouraged by the water level of the lake in adjoining MacArthur Park.

Consultants and Contractors

The estimated cost of the building is \$3½m. Work started in the autumn of 1959 and was completed in the summer of this year. Planning, architecture and engineering was the responsibility of Daniel, Mann, Johnson and Mendenhall, Los Angeles, with Stephen Oppenheim as the design architect. The sculptural consultant was Malcolm Leland, Los Angeles; the interior designers, Paul Bennett and Associates, Los Angeles; and the landscape architect, Victor Pinckney, Pasadena. Peter Kiewit Sons, Arcadia, were the general contractors.



An X member being placed

they have not often been applied to multi-storey building construction. The central core was constructed separately by slip-form method and was erected entirely within a period of about four weeks, the slip-form method giving a time-saving factor of about one week per floor, or 13 weeks, compared with normal techniques. This rapid construction permitted work to begin very early on elevator installation, when the precast X members and the precast floor beams were installed floor by

NEWPORT BRIDGE ESTIMATE INCREASED £500,000

Newport (Mon.) Borough Council have been informed that the probable cost of the proposed George Street Bridge over the Usk has risen by almost half to £1,538,000. Only last December they submitted an estimate of £1,076,000 to the Ministry of Transport.

At a recent Council meeting, Alderman A. Pugh said that while the new estimate was £1,538,000, he expected the final cost to be £2m.

EDINBURGH SAFETY GROUP'S 1962 PROGRAMME

Meetings arranged by the Edinburgh and District Building Safety Group during the next six months will include two visits to sites. On December 16 members will visit the Gorbals development, under the auspices of Holland & Hannen and Cubitts (Scotland), Ltd., and on February 21 a Paper will be given to the Group by Mr. Robert Woods of the A.C.D. Bridge Co., on Problems of Design and Construction. This will be followed on March 10 by a visit to the Forth Road Bridge contract, which is being carried out by A.C.D. Bridge Co. The annual general meeting of the Group will be held on April 25.

MARSHALLING YARD EARTHMOVING CONTRACT

Shellabear Price, Ltd, Walton-on-Thames, have secured a contract worth approximately £35,000 for earthworks in connection with the new departure sidings, Stourton Marshalling Yard, for British Railways, North Eastern Region. The contract period is six months and work has recently commenced. The contractors will be using mainly the twin-engined Euclid T.S. 24 motor scrapers.



General view of completed building

NATIONAL CAR PARKING SURVEY

Not a "Happy Picture"

A CAR parking survey of the country—the first ever held—has been undertaken by the British Road Federation. Its purpose was to find out how the major towns and cities are tackling this growing problem—what they are doing now; what they are planning to do.

The picture it presents is not a happy one. Lord Derwent, chairman of the Federation, speaking in London on Tuesday said: "It is true that a number of authorities are trying to overcome the problem. But, generally, one is confronted with an impression that there is a definite lack of urgency."

He pointed out the dangers which might face towns and cities with inadequate parking facilities. "This, for better or worse, is a competitive world, and our urban centres are in serious rivalry as places of attraction for shopping, entertainment, business and so on. Make no mistake: The ones which fail to attract will in time decay."

It was ironical that the areas where the needs were greatest were the very ones where parking provision was least adequate—the busiest cities, the metropolitan boroughs, and the other boroughs in the Greater London area.

Of the work to be done, Lord Derwent said: "The demand is much too vast and, as with the roads, we are much too far behind to catch up quickly. But time is running out. When we think of the future—12,000,000 cars by 1970, for instance—the problem is brought into perspective."

DIRECT LABOUR BONUS INQUIRY AT WIDNES

Widnes Corporation have ordered an inquiry into the bonus scheme operated by their building department. A firm of chartered quantity surveyors is to conduct an interim inquiry for a fee of 400 guineas.

The Corporation learned recently that the building department had lost an estimated £30,000 in a year.

PRODUCTION OF BRICKS AND CEMENT

ACCORDING to figures collected by the Ministry of Works, 658,000,000 bricks were produced in Great Britain in October, 31,000,000 more than in October last year. Total production of bricks for the first 10 months of this year has been 2½ per cent. higher than for the same period last year. Stocks of bricks at the end of October were 17,000,000 more than at the end of October 1960.

During the four weeks ended October 30, 1,119,000 tons of cement were produced in the United Kingdom, compared with 1,061,000 tons in the same period last year, an increase of 5½ per cent. Production was 7 per cent. and deliveries to the home market from home production were 11 per cent. higher in the first 10 months of the year than in 1960.

In September, 32,000 tons of cement were imported and during the first nine months of the year 79,000 more tons were imported than during the same period last year.

N.H.B.R.C. INSPECTORS KEEP UP TO DATE

More than 50 National House-Builders Registration Council inspectors and members of the headquarters technical staff met at a recent conference in London under the chairmanship of the director, Mr. Norman H. Walls, F.R.S.H., A.I.Struct.E.

The purpose of the conference was to discuss recent developments and plans for the future. During a questions and answers session many day-to-day problems and suggestions for improving the service were also discussed.

Because of the recent rapid growth in the number of inspections, the number of houses submitted for inspection, and the necessary extensions to the inspecting staff, this was, for many of the inspectors, their first meeting with colleagues from outside their own regions.

The conference was planned to coincide with the Building Exhibition and after the conference the inspectors went on a fact-finding tour of the exhibition to keep abreast of recent developments and introduction of new materials.

Late Construction News

WINCHESTER HOTEL.—James Drewitt and Son, Ltd., Ringwood Road, West Howe, Bournemouth, have been awarded a £350,000 contract by Trust Houses, Ltd., for building a 90-bedroom hotel at Cathedral Close, Winchester.

LANCS. SEWAGE WORKS.—Walton-le-Dale (Lancs.) U.D.C. have accepted the tender of R. T. Haley and Co., Ltd., Cleckheaton, Yorks., at £317,676, for the construction of a new sewage disposal works.

CONCRETE SERVICE RESERVOIR.—Work will begin next month on the construction of a reinforced concrete service reservoir of 10 million gallons capacity for the South Derbyshire Water Board. The contract has been placed with Bowmer and Kirkland, Ltd., Heage, Derbys., at a cost of £127,282.

WEST HARTLEPOOL COLLEGE.—The first stage of West Hartlepool's College of Further Education, which will cost about £750,000, is to be built by Crudens, Ltd., Musselburgh.

£3.3M. SHEFFIELD HOUSING.—Sheffield Housing Development Committee have approved the construction by direct labour of the second phase of the Park Hill flats scheme at a negotiated price of £3,395,423.

DENBIGHS. ROAD IMPROVEMENT.—Subject to Ministry consent, Colwyn Bay (Denbighs.) B.C. have accepted the tender of D.C.M. Contractors (Liverpool), Ltd., Blue-belle Lane, Liverpool, for the Llandudno dual-carriageway improvement scheme on the A55 trunk road. The cost will be £244,854.

B.R. DEPOT AT LANDORE.—Kyle Stewart (Contractors), Ltd., Ardshiel House, Wembley Park, Middx., have been awarded a contract, worth about £450,000, by British Railways Western Region for the construction of a servicing and maintenance depot at Landore, Swansea.

SELBY-YORK ROAD IMPROVEMENT.—East Riding County Council have placed a £22,322 contract with Martin Cowley, Ltd., Clay Cross, Derbys., for the improvement of the Selby-York Trunk Road between Derwent House and Deighton Annex.

£726,851 CONTRACTS FOR LANCS. SCHOOLS.—The Ministry of Education has approved the placing of five contracts by Lancs. Education Committee. Three contracts have been awarded to Gilbert-Ash, Ltd., 2 Stanhope Gate, London, W.1. They are for the erection of Ormskirk grammar school, £107,000, Ormskirk secondary school, £93,000, and for phases 1 and 2 of the construction of Queen Elizabeth's grammar school at Middleton, £292,500. The other two contracts have been awarded to W. J. Simms, Sons and Cooke, Ltd., Manchester, for a special school at Crosby, £73,835, and to Spooners (Hull), Ltd., for the Hulton secondary school at Worsley, £160,516.

HALL OF RESIDENCE.—Hull University will invite tenders early next year for the erection of a £150,000 hall of residence. The architect is Sir Leslie Martin, Cambridge Professor of Architecture.

SHEFFIELD STEELWORKS.—Two further contracts have been placed by the English Steel Corporation in connection with their £26m. steelworks now under construction at Tinsley Park, Sheffield: Robertsons Thain, Ltd., Sheffield, have been awarded a £400,000 contract for the cladding of the major buildings, and the clean air equipment will be installed by the gas cleaning division of W. C. Holmes and Co., Ltd., Huddersfield, at a cost of £250,000.

INSTITUTE EXTENSION.—Work will commence in December on the extension of the Anderson Educational Institute for Zetland County Council. The main contractors are R. Pert and Sons, Ltd., Lower Balmain Street, Montrose, with a tender figure £239,487. The heating will be installed by J. T. L. Parkinson, Ltd., 457 Union Street, Aberdeen, at a cost of £17,773.

RELIEF SEWER.—Woolwich Metropolitan Borough Council have recommended the acceptance of the £211,811 tender of J. E. Billings and Co., Ltd., 54 Beddington Lane, Croydon, Surrey, for the construction of Well Hall relief sewer.

START NEXT WEEK ON NEW SHAKESPEARE CENTRE

WORK is to begin next week on the construction of the new Shakespeare Centre at Stratford-upon-Avon. The contract, worth about £125,000, has been placed with Higgs and Hill, Ltd., South Lambeth Road, London, S.W.8.

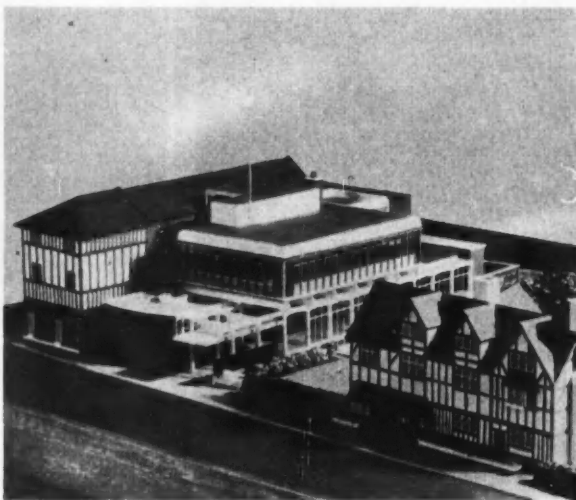
Scheduled for completion by April, 1964, the centre will overlook the gardens of Shakespeare's birthplace, and will comprise a library, study centre and the administrative headquarters of the Shakespeare Birthplace Trust.

The building will have a precast in-situ concrete frame of two floors with a basement underneath. Externally it will have a bush-hammered finish, green slate trim and granite and marble facings. The brickwork will match that of the existing Shakespeare Memorial Theatre.

The interior will have marble and

wood block floors, with wood panelled walls of elm and rosewood. Heating will be by Stramax heating panels in the ceilings.

The architects for the building are Wood and Kendrick and Williams, 57 Colmore Row, Birmingham 3.



Model of the new Shakespeare centre

RECONSTRUCTION OF BRIDGE OVER REGENTS CANAL

Scheme Complicated by Maze of Services

A SMALL bridge reconstruction scheme, which when it was first suggested in 1928 would have cost £10,700, has recently been completed at a cost of £67,000.

The bridge is the 150-year-old Prince Albert Road Bridge over the Regents Canal in St. Pancras. In 1928 it was proposed that the bridge should be reconstructed with a 50ft. road and 37ft. between abutments.

With one financial crisis following another during the next three decades the scheme was the subject of endless deferments and never reached the drawing board stage. However in February, 1953, the Borough Council decided to proceed with the design of the new bridge so that when funds were available for grant purposes, work could be started at short notice. The L.C.C. had by this time decided that Prince Albert Road should have an ultimate width of 70ft.

Since that time the Borough Council have had almost continuous negotiations with all the public utility companies, British Waterways, Ministry of Transport, Ministry of Works, Crown Estate Commissioners, the Royal Fine Art Commission and the L.C.C.

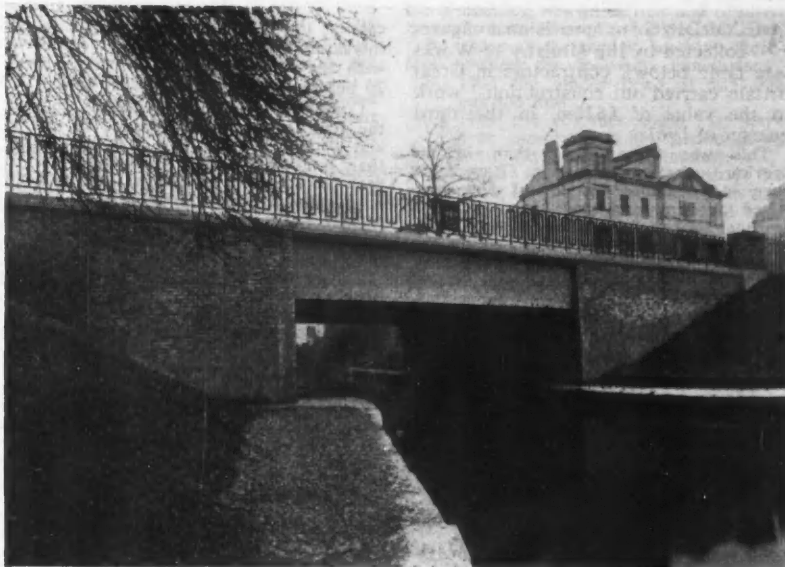
It was eventually decided that in view of the large service mains carried by the bridge it would be much more economical to reduce the span to 30ft. and provide only 9ft. headroom above the canal water level.

In 1957, the appointed consulting engineers, L. G. Mouchel and Partners, were at last able to begin the preparation of a detailed design. Tenders were invited and the contract let to James Crosby and Sons, Ltd., in August, 1960. The Ministry of Transport made a 60 per cent. grant towards the total cost which was then £67,000.

Services Maintained

What would appear to be a simple reconstruction scheme was in fact complicated by the large number of essential services carried over the canal by the bridge. These services included: four water mains, two of 7in. diameter, one of 42in. and one of 36in.; two gas mains of 17in. and 4in. diameter; electricity cables; and 8,275 trunk telephone circuits from London to the Midlands in 30 cable ducts bedded in a large concrete slab.

It was necessary to maintain all these service mains during the whole time the



New Prince Albert Road bridge

bridge was under construction and to do this the bridge had to be built in two sections. First, temporary mains to replace those in one half of the bridge were laid and the old mains cut off and diverted to the temporary mains. Then the first half of the bridge was constructed and the same procedure was followed for the second part of the bridge.

An added difficulty was the need to maintain a waterway for canal traffic, especially as the new bridge is supported on 80 piles. Demolition of the old bridge was carried out over two weekends, the debris being dropped into canal barges.

Reinforced Concrete Construction

The new bridge is of reinforced concrete construction, with the abutments faced in brick. It is 45ft. wide, consisting of 30ft. wide carriageway and two footways, each 7ft. 6in. wide. Provision is made for the bridge to be widened to the ultimate 70ft.

In conjunction with the bridge works the

Borough Council have taken the opportunity to effect an improvement at the junction of Prince Albert Road and Gloucester Gate, to install improved street lighting and to resurface part of the carriageway of Prince Albert Road.

The whole of the works were carried out under the direction of the borough engineer, C. S. Bainbridge, M.I.C.E., F.R.I.C.S., M.I.Mun.E.

BRITISH STANDARDS

Copper and Copper Alloy Traps

A newly revised edition of B.S. 1184—specification for copper and copper alloy traps—omits the wastes and bath overflows which were included in the 1951 edition. (These are now dealt with in B.S. 3380, Part 1, published in April this year.)

The new standard (B.S. 1184 : 1961) specifies the materials, workmanship, design, construction, dimensions and tolerances for traps of 1½in., 1½in. and 2in. nominal sizes. Copper and alloys such as brass and gunmetal are the materials covered by this British Standard and the types of traps comprise tubular (solid drawn), cast and hot formed. Each type is illustrated, and each type and size is given a unique "type reference number" to facilitate referencing.

For example, by simply quoting the B.S. type reference number "TBPJ 66" it is possible to convey the whole of the following information: "a 1½in. nominal bore cast brass 'P' trap (for bath) having an outlet end screwed externally with a 1½in. BSP.F thread, together with one blank capped cleaning eye and provision for the connection of a 13/16in. min. bore bath overflow connector".

Such condensation is particularly useful for inserting references on drawings. Another aid to orderly marketing introduced in this British Standard is the "ordering note" which lists those variable features of traps, where the intending purchaser needs to be specific when making an enquiry or placing an order. Price 8s. 6d. each.

Copies of this British Standard may be obtained from the British Standards Institution, Sales Branch, 2 Park Street, London, W.1.



Old Prince Albert Road bridge

£260M. OF CONSTRUCTION CARRIED OUT IN THIRD QUARTER

2 Per Cent. Rise in Work Done

ACCORDING to provisional figures collected by the Ministry of Works (see table below), contractors in Great Britain carried out constructional work to the value of £620m. in the third quarter of 1961.

This was £16m. more than in the previous quarter and nearly £70m. more than in the third quarter of last year. After allowing for price increases and seasonal factors the amount of work done in the third quarter as measured by the Index of Production was nearly 2 per cent. higher than in the previous quarter and over 8 per cent. higher than a year earlier.

The increase in production in the third quarter was almost entirely accounted for by the increase in work other than housing

carried out for public authorities, which increased by nearly 6 per cent. compared with the second quarter and was almost 20 per cent. higher than a year earlier.

Compared with the previous quarter, the level of house building (both public and private) and private building (other than housing) showed no change, but in each sector work increased by between 7 and 14 per cent. compared with a year earlier. The level of work on repair and maintenance has remained fairly steady over the last 15 months.

The number of men employed in Great Britain remained at a high level and employment continued to be higher than in any year since 1956, but it is no longer rising.

CONSTRUCTION IN GREAT BRITAIN 1. Value of Work Done by Contractors (at Current Prices)

	1960		1961	
	3rd quarter	2nd quarter	3rd quarter	£ million
New Housing	59	63	64	
For Public Authorities	...	...	...	...
For Private Developers	101	112	112	
Housing Total	160	175	176	
Other New Work	...	...	...	...
For Public Authorities	111	125	134	
For Private Developers:	...	...	...	...
Industrial	89	104	104	
Miscellaneous	63	70	72	
Other New Work Total	263	299	310	
Total All New Work	423	474	486	
Repair and Maintenance	128	130	134	
Grand Total	551	604	620	

2. Operatives Employed by Contractors*

	1960		1961	
	July	October	July	October
New Housing	294	291	292	291
Other New Work	453	464	488	491
Repair and Maintenance	339	349	337	339
Total	1,086	1,104	1,117	1,121

* Insured operatives aged 15 years and over, excluding administrative, technical and clerical workers and self-employed operatives.

3. Index of Production

Changes in the volume of work done are shown in the official index of industrial production. The index numbers for construction are as follows:—

1954=100	1961
1960 3rd quarter 118	3rd quarter 127
1954=100 127	

MOBILE HOMES FOR LONDON FAMILIES

THE L.C.C. have approved a proposal for making some temporary use of their vacant sites which are not required immediately for redevelopment.

Whilst most of the 2,000 or so cleared sites held by the Council at any one time are required for redevelopment within two years, about 300 or more, amounting to about 90 or 100 acres, are available for longer periods. These are held predominantly for purposes other than housing, such as future schools and open spaces.

The Housing Committee have inspected specimens of three types of mobile homes which have been erected temporarily on the South Bank near County Hall. If erected for London families these homes would be in addition to the L.C.C.'s output of over 4,000 permanent homes a year.

The three types inspected were the "Atlanta," the "Sun Cottage" and the "Terrapin."

The "Atlanta" and the "Sun Cottage" are complete homes in themselves equipped with all necessary fittings, fixtures and furniture. The "Atlanta" is transportable as a complete unit and after unloading, wheels, axles and springs are replaced by steel jacks resting on concrete pads. The "Sun Cottage" is transportable as two separate units which can be joined together in under an hour by a "bolt-tight" seal, and which are supported by steel jacks on concrete pads.

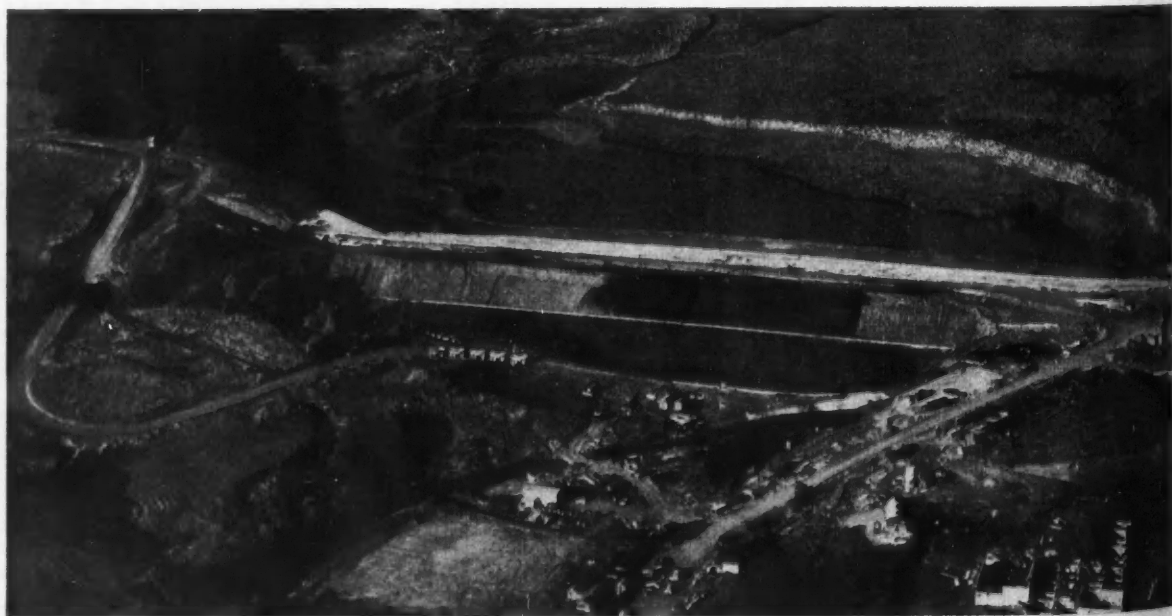
The "Terrapin" is a packaged timber bungalow capable of erection on simply prepared foundations in about one hour.

ST. JOHN'S WOOD LUXURY FLATS CONTRACT

Work is about to start on the erection of 25 luxury residential flats and 25 garages at Wellington Road, London, N.W.8, for Town Centre Flats, Ltd., a subsidiary of Town Centre Properties, Ltd.

R. Seifert and Partners, 34 Red Lion Square, London, W.C.1, are the architects, and the contract, valued at about £200,000, has been placed with Tersons, Ltd., 4 Dollis Park, London, N.3.

"Selected Planning Appeals 1961" (second series, volume three) has been published by H.M. Stationery Office, price 4s. net.



An aerial view of the £1m. Tittesworth Dam, which is being constructed by John Howard and Co., Ltd., for the Staffordshire Potteries Water Board. One million tons of sandfill was placed in position to form the dam. Impounding will commence in January, 1962, and the contract is due for completion in May, 1962. The consulting engineers are Binnie, Deacon and Gourley

EXCESS EXPENDITURE ON HOUSING SCHEME

Report on Stoke Newington Direct Labour Contract

THE report of the special committee appointed by Stoke Newington Borough Council to investigate the excess expenditure of the Lordship Road Housing Scheme was submitted to the Council last week.

The scheme in question comprised a seven-storey block of 49 flats, three four-storey blocks providing 72 flats and four houses. The contractors were the Direct Labour Force. It was the biggest contract which had ever been undertaken by the Force, and the only multi-storey block which had been constructed by the Force in a reinforced concrete frame.

The following tenders were submitted to the Council:

Tenderer	Tender Price £	Period quoted for completion of work.
Direct Labour Force	255,000	16 months
Tender No. 2	280,534	None given
" No. 3	282,200	30 months
" No. 4	285,378	None given
" No. 5	286,209	24 months
" No. 6	287,547	None given
" No. 7	287,900	None given
" No. 8	298,685	None given
" No. 9	306,501	None given
" No. 10	310,790	None given
" No. 11	311,237	None given
" No. 12	313,219	None given

In December, 1955, the Council accepted the Direct Labour Force tender, subject to the checking of the bills of quantities, the receipt of loan sanction and any necessary consents. The bills of quantities which form the basis of the tender were examined by the quantity surveyors, as is the usual practice, and in January, 1956, the report of the quantity surveyors, following the examination, was submitted to the housing committee. The report indicated, *inter alia*, that the bills had been very carefully priced but that the rates were "very competitive." The quantity surveyors' report was forwarded to the Ministry with the tender.

Work started in April, 1956, and was completed in January, 1959. The quantity surveyors certified the value of the completed work to be £273,757. The difference between the tender price and the certified value of the completed work represents the cost of approved variations and additions carried out during the progress of the works. The actual cost of the work was £316,048. The excess cost to which the special committee particularly directed their attention was therefore £42,300.

The special committee's report states: Claims for delay in obtaining possession, waterlogging of site, show flats and delays by nominated sub-contractors, which would have increased the certified value of the completed work, were not pursued.

It should be borne in mind that the next lowest tender would have produced a figure of £301,173.

Since our inquiry began, loan sanction covering the whole of the cost has been received from the Ministry of Housing and Local Government.

Although we examined this matter in all its aspects we gave particular attention to the point of view of a contractor as distinct from that of a body which has employed a contractor to carry out building work. In the latter case the employer would be liable only for the tender price together with the cost of approved variations and additions; in the former case, the contractor is liable for any additional cost for the recovery of which he cannot look to his employer. Looking at the matter then as a contractor, we have been reminded by the quantity surveyor that for a contractor to lose financially on a contract is by no means unusual. In many years' experience, he had found, he told us, that some of the best contractors in London had lost considerable sums of money on some jobs. Completing a job within the estimate depended on many

factors "and, in some cases, luck." Contractors, however, are able to set off their losses on one contract against their profits on another. Here we have applied ourselves to this particular contract to the exclusion, generally, of others.

One of the first matters we examined was the tender itself, both as to the amount and as to the period during which it was proposed to complete the work. Evidence was given to us that the estimate on which the Direct Labour Force tender was based totalled £261,387, and that it was considered by the technical staff, then responsible, that a period of 24 months was a reasonable period for completion. It would appear that to make the estimate even more competitive, it was reduced for the purposes of the tender by £6,387, and the period of the contract from 24 to 16 months.

The evidence we have heard with regard to the amount of this tender has varied between describing it as "competitive but realistic for a normal standard of work," and "obviously unrealistic." No evidence has been placed before us to justify the reduction of £6,387 from the original estimate. The weight of evidence, however, was to the effect that the reduction of £6,387 from the estimate was, to say the least, inadvisable and that even without this reduction, the contract could hardly have been completed at the price unless everything had gone absolutely smoothly and no difficulties or delays of any kind had occurred.

In point of fact, progress on the work was far from smooth and every conceivable difficulty and delay arose on this contract, as will appear.

In considering the amount of the tender, our attention was also drawn to the percentage addition to prime cost sums. We were advised that normally 2½ per cent. is allowed on nominated sub-contractors' work. In this tender, in pursuance of a decision which had been taken by the Council, only 1 per cent. was allowed.

We observed that the rates quoted for painting and brickwork were lower than in earlier Direct Labour Force tenders notwithstanding an increase in prices.

The following analysis of the actual final cost is not without significance:

Labour	80,500
Materials	91,000
Haulage and Plant	2,500
Sub-contractors	115,000
Oncosts	27,000
	£316,000

It seems reasonable to assume that whoever had executed the contract and however long the work might have taken, the second, third and fourth items would not have varied greatly. Accepting the cost of labour and oncosts as the variable elements these could not have varied by more than a relatively small proportion of the total cost. This would seem to give further support to the contention that the tender price was too keenly computed.

With regard to the period for the completion of the works, it will be observed that of the 12 contractors tendering, no less than nine failed to quote a time. One tenderer quoted 24 months, another 30 months, and the Direct Labour Force 16 months. Apart from the significance of this, evidence has been given to us by the architect that a contract of this size would normally be expected to take two years to complete. A period of 12 months was required by the sub-contractors responsible for the reinforced concrete frame and floors alone. Our own experience of the time taken on other and simpler building work emphasises the inadequacy of this period of 16 months. Only one of the witnesses who appeared before us expressed the opinion that the work could have been completed in 16 months, but we have heard no evidence to support that opinion.

We are satisfied that the time allowed for completion was unrealistic and resulted in too low an allowance for preliminaries.

In regard to the tender, we have therefore reached the following conclusions:

(a) That the tender price of £255,000 was too low.

(b) That the contract could not have been completed in the period of 16 months quoted in the tender.

Although we cannot accept that the restoration of the cut of £6,387 to the Direct Labour Force estimate would have made the tender an entirely viable one, it seems to us to be reasonable to do so in considering the difference between the tender price and the final cost. We are advised by the architect that if the cut had not been made, and a period of 24 months instead of 16 months had been quoted, the total effect would, in his opinion, have been as follows:

Estimate	£
261,387	
Preliminaries for 24 months instead of 16 months, add	5,000
	266,387
In addition, if the normal 2½ per cent. had been applied to sub-contractors work instead of 1 per cent., this would have increased the tender by	1,700
If the labour rates had been properly priced, this would have added a further	12,000
	280,087

This may be related to the second lowest tender which was in the sum of £280,534.

Difficulties and Delays

The principal difficulties and delays encountered during the progress of the contract were:

Organisation

The tender was submitted in December, 1955; work began in May, 1956, and finished in January, 1959.

Responsibility for the direction of the Direct Labour Force was passed from the town clerk to the borough engineer in December, 1956.

A lengthy inquiry into the working of the Direct Labour Force took place during the early part of the contract which led to the reorganisation of the Force and the appointment in February, 1957, of a new building manager.

We are satisfied that this change of control is of major significance and constitutes a substantial contributory cause to the excess cost of this contract and was, apart from the tender, the largest individual cause.

Delay in Possession of Site

There were delays in obtaining possession of the site to enable the builders to proceed, and, in fact, at one stage a mechanical digger was actually working while people were still in occupation of a house forming part of the site.

Demolition Delay

There were difficulties in connection with the demolition sub-contractors, and this work had to be finished by the Direct Labour Force.

Condition of Site

In July, 1956, there was abnormally heavy rainfall and the trenches were waterlogged. When the new building manager took over, the site was flooded, and extensive pumping had to be carried out.

Unsatisfactory Work

Plastering

The whole of this work was by sub-contract. It was priced on the basis that a sub-contractor then employed on another contract would be employed on this. However, in view of the council's experience with the plastering on that other contract, it was decided to invite fresh tenders for this work. This involved

(Concluded on next page)

Men and Movements

RE-ELECTED chairman and vice-chairman respectively of The Export Group for the Constructional Industries are **Mr. E. C. Beck**, M.A., M.I.C.E., and **Mr. P. W. E. Holloway**, O.B.E., M.A., M.I.C.E. **Mr. H. J. Patterson**, M.I.Ex., has been elected hon. treasurer and **Mr. J. Maurice Laing** continues to hold office as immediate past-chairman. Mr. Beck is



E. C. BECK

P. W. E. HOLLOWAY

chairman of John Mowlem and Co., Ltd.; Mr. Holloway is chairman of Holloway Brothers (London), Ltd.; Mr. Patterson is commercial manager of Dorman Long (Bridge and Engineering), Ltd.; and Mr. Laing is deputy chairman and managing director of John Laing and Son, Ltd.

Cornercroft, Ltd., have announced that **Mr. J. R. Mead**, J.P., F.C.A., has been appointed chairman, and **Mr. H. F. Hope**, managing director. Mr. Mead has also been appointed chairman of the subsidiary company, James Beresford and Son, Ltd., and **Mr. W. J. Burslem**, managing director of that company.

The new chairman of the North of Scotland Hydro-Electric Board is **Mr. A. I. Mackenzie**. He succeeds **Sir John Erskine**, who is retiring. **Lord Macdonald** has been appointed a part-time member of the Board.

After 42 years' service with G. Percy Trentham, Ltd., of which 20 years have been spent as secretary, **Mr. R. B. Culverwell** will retire at the end of December because of ill health. **Mr. C. A. Richards** will become the new secretary, with **Mr. M. P. Scanlon** as chief accountant and **Mr. C. P. Jordan** as assistant secretary.

(Concluded from previous page)
a higher cost than that provided for in the tender.

Foundation Work

As a result of an unsatisfactory mortar mix in part of the foundations, certain remedial measures had to be taken. An inquiry into the matter held at the time led to the new appointment to which we have already referred. Apart from the actual additional cost involved on these measures, delay was incurred.

Paintwork

Paintwork carried out by the Direct Labour Force on another project immediately before this gave rise to very considerable criticism; this appears to have had the result that an unusual measure of care was taken on this contract to ensure that there should be no justification for similar criticism. The standard of paintwork on the Lordship buildings was therefore particularly high and there would appear to be no doubt that this was reflected in the cost over and above that allowed for in the tender.

Excessive condensation resulting from bad weather necessitated considerable redecoration; external window and door frames had to have additional paint due to their being on the site too long before they were used. Nevertheless the architect informs us that 225 man/months were

Dowty Group, Ltd., have pleasure in announcing that **Mr. K. W. Browning** has been appointed a director of D. G. Services, Ltd. He will continue to be responsible for all training and educational facilities in the group. He has been with the Dowty organisation for nearly 10 years, initially as assistant personnel manager of the group's aviation companies, and later as personnel manager of the industrial companies at Ashchurch. In 1958 Mr. Browning was appointed chief training executive in charge of all training activities in the group.

A visit was recently made to the Water-side Works of Ransomes and Rapier, Ltd., by two members of the Polish Technical Delegation of senior engineers now touring this country. They were **Mr. Leon Kolarski**, of Foreign Trade Polimex (the Polish national buying organisation) and **Mr. Stefan Oldakowski**, an expert on contractors' plant, who were accompanied on their visit to the works by **Mr. R. J. Dunnett**, assistant export manager of Ransomes and Rapier, and **Mr. A. W. Hunt**, assistant home sales manager.

Sanders and Forster, Ltd., have announced the appointment of **Mr. Ronald W. Abel** as home sales manager of its standard steel building division. Mr. Abel joined **Sanders and Forster** as a technical representative for standard buildings in 1958, and in 1960 he became assistant home sales manager.



R. W. ABEL

Andrew Fraser and Co., Ltd., have reinforced their service facilities in the north of England with the addition of **Mr. A. Proud** to their staff.

Mr. F. J. Osborne and **Mr. L. J. Page**, respectively managers of the Brentford and Leatherhead depots of **William Ashby and Son, Ltd.**, have been appointed as executive directors of the company.

spent on painting. The estimate for this item was vastly overspent. Even allowing for the low tender price, overtime, bad weather, additional painting and the high standard (resulting in a saving in maintenance costs) the cost was too high.

When the borough engineer took over control of the Direct Labour Force and the new building manager had been appointed, the attention of the Works and Building Committee was drawn to what they considered to be the unrealistic nature of the tender. That Committee had, of course, been made aware of the other difficulties to which we have referred as they arose. Up to the end of January, 1957, although the work had been in progress for nine months (more than 50 per cent. of the contract time), only 15 per cent. of the work had been completed. From that stage, a new timetable was prepared and the work completely reorganised after which difficulties were reduced to a minimum; there were, however, delays due to shortage of bricks and to the redecoration referred to in the previous paragraph.

Certain of the delays and difficulties would have been encountered by any contractor; others would not.

In attempting to assess the financial effect of the first category, we have been advised that a contractor could have justified a claim for between £2,500 and £5,000 in respect of the delays beyond his

Mr. Peter Russell Walker (left), president of the Incorporated Association of Architects and Surveyors, hands a 50-guinea cheque, the first prize, to **Mr. J. E. Marshall**.



31-year-old building surveyor with Aylesbury Borough Council, who designed the Association's stand at the 1961 Building Exhibition. It was Mr. Marshall's first exhibition stand design.

Mr. C. M. Risk has been appointed secretary of **Sir William Arrol and Co., Ltd.**, in succession to the late **Mr. W. I. Gray**.

William Boby and Co., Ltd., have appointed **Lt.-Comd. C. B. Shirley** to head their production department.

MUNICIPAL

Mr. W. M. Jollans, county water engineer at Caithness, has been appointed waterworks engineer and manager at Huddersfield. He succeeds **Mr. J. I. Beveridge**, who will retire early next year.

The new deputy borough engineer at Bury is **Mr. G. T. Hunt**, who succeeds **Mr. A. R. Rigby**. Mr. Hunt was previously chief assistant engineer at Burnley, and Mr. Rigby has become deputy borough engineer at Oldham.

control. If this sum is added to the amount of the second lowest tender, together with the value of the variations and additions made during the course of the work, a figure of between £302,500 and £305,000 is reached.

The negotiation of such a claim by the Direct Labour Force would have entailed a considerable amount of administrative work by technical officers, to the detriment of current construction work, and there would have been no financial advantage to the Council as would have been the case with a contractor. In these circumstances the claim was not pursued.

We have been advised of the financial assessments that could be placed on the other difficulties and delays which would account for the difference between this figure (£302,500/£305,000) and the final cost. We resist the temptation to set this forth as a simple arithmetic calculation, partly because we realise that it would be merely an estimate of something which it is virtually impossible to calculate with any precision, and partly because it might imply that we are satisfied with a facile explanation of the position.

Whilst we are satisfied that the excess cost is not due to any one cause but rather that it is due, in the main, to the cumulative effect of the many adverse circumstances to which we have referred, we feel far from satisfied with the position.

C.L.A.S.P. SYSTEM NOW TO BE MADE AVAILABLE IN ITALY

THE Brockhouse Organisation announce that, as a result of the success of the single-storey primary school, exhibited by Great Britain at the 12th Triennale, held in Milan in 1960, the C.L.A.S.P. method of construction upon which it was built is now to be made available in Italy.

Before the system could be used in that country, however, it was necessary to convert dimensional data to metric measurements and to modify it to suit local conditions. This work has now been completed by Costruzioni Modulari S.p.A., of Milan, which is a subsidiary company of Brockhouse Steel Structures, Ltd., of West Bromwich, manufacturers of the special prefabricated steel framework, upon which the system is based.

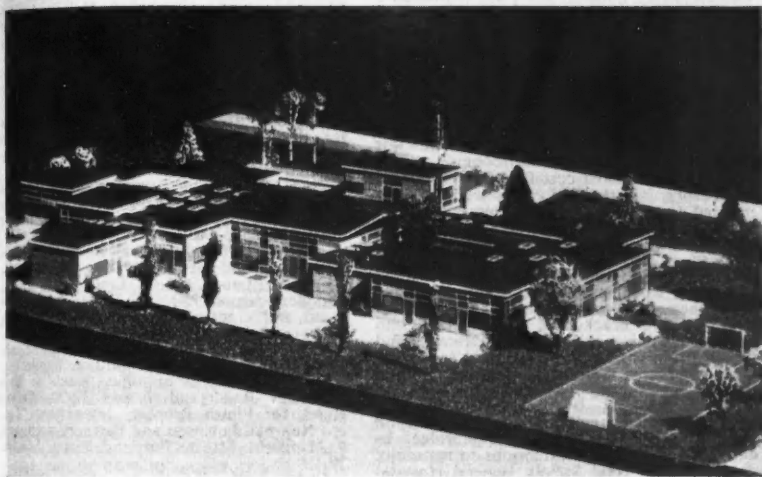
The first school to be built in Italy will be situated at Biella some 40 kilometres north of Vercelli in the Piedmont Region, and will consist of six classrooms, an

assembly hall, and other accommodation normally provided in a building of this type.

The approximate cost of the project will be in the region of £50,000, and the work will be concluded in four months. Both the Italian Government and the Local Authorities have shown considerable interest in this method of construction for schools and other types of structures and negotiations are taking place regarding the construction of a number of buildings next year.

Operating in a similar capacity to the Consortium of Local Authorities in Britain, Costruzioni Modulari S.p.A., will obtain tenders on all factory-made components covering a year's programme of building, thus enabling potential users of the system to obtain the advantages of bulk ordering.

The Brockhouse Group also announce that in addition to the developments in Italy, the system is also being used under similar conditions in Western Germany.



A model of the school to be built at Biella

HARROW TO APPOINT BOROUGH ARCHITECT

A NEW appointment—that of Borough Architect and Planner—is being created at Harrow in view of the increasing amount of work of this nature.

Under the new scheme, which comes into force next year, engineering and allied functions will remain under the control and direction of the Borough Engineer and Surveyor. Architectural and planning (including replanning functions) will be dealt with by the new chief officer.

The change is to take place on the retirement of Mr. Melville Richards, the borough engineer and surveyor, on July 1, 1962.

Reporting on this, the Council's General Purposes Committee says:

"There is no doubt that fresh functions arising from new legislation in recent years have thrown an increasingly heavy burden upon local authorities and their staffs, and particularly upon the Borough Engineer and Surveyor's Department; and it is a reasonable assumption that further additional functions will arise in the immediate years ahead.

"Also, in your committee's view, the diversity and complex nature of the work of the Borough Engineer's Department in Harrow, and the very large programme ahead, calls for a reorganisation on the lines suggested."

The report points out that 62 county and municipal boroughs (many of them considerably smaller in area and population than Harrow) have separated their technical functions into two main departments.

WENTBRIDGE BY-PASS NEARING COMPLETION

The Wentbridge By-pass in the West Riding of Yorkshire, which forms part of the comprehensive improvement of the Great North Road (A.1), is on the point of completion.

Traffic is now able to use the by-pass, although the official opening ceremony will not take place until December 11. It will then be formally opened by Alderman A. Dwyer, chairman of the Highways Committee of the West Riding Council, the Minister of Transport's agent authority.

The new road, which is nearly two miles long, runs to the east of Wentbridge. Dual 24ft. carriageways have been provided with a 15ft. wide central reservation, widening to 30ft. at road junctions, and two 12ft. wide verges.

A new bridge 370ft. long has been constructed across the valley of the river Went, about 100ft. above the valley floor. More than 120 miles of steel scaffolding tubes were used in the construction of this bridge, and the imposing nature of the structure will not be fully apparent until these have all been removed in about a month's time.

A second bridge has been constructed to carry Went Edge Road over the by-pass.

With the opening of this by-pass, there will be a continuous stretch of dual carriageways for some 26 miles from the south end of Blyth By-pass to Knottingley roundabout.

The scheme, which has cost just over £800,000, was carried out by Taylor Woodrow Construction Ltd., in just over two years, work having started in October 1959.

The scheme was prepared for the Ministry of Transport by West Riding County Council (county surveyor, Col. S. Maynard Lovell, O.B.E., E.R.D., T.D.).

BUILDING OPERATIVES SUBMIT CLAIMS

THE National Federation of Building Trades Operatives have submitted to the National Joint Council for the Building Industry, under Rule 10(b) of the Joint Council's Constitution and Rules, Notices of Constitutional Amendment proposals having the following effect:

(1) *Wage Rates*—a substantial increase in wage rates.

(2) *N.W.R. 2—Working Hours*—normal working hours to be worked in five days throughout the year.

(3) *N.W.R. 2—Meal Intervals*—substitution for the present para. 2 of the Rule of the following:

"In all cases there shall be a break for a mid-day meal at a time fixed by arrangement between employer and operatives on each site, job, or shop. This break shall not exceed one hour per day and shall not be less than half-an-hour."

(4) *N.W.R. 2A—Guaranteed Time*—payment of the full current hourly rate for all normal working hours during which an operative is available for work.

(5) *N.W.R. 2B—Termination of Employment*—after the first six working days at least one week's notice to be given by either the employer or the workman to expire at normal finishing time on the Friday.

(6) *N.W.R. 3A(g)—work in swings, cradles, etc.*—increase in the extra payment from 2d. to 6d. per hour.

(7) *N.W.R. 3E*—painters and painter apprentices to have a tool and overall allowance of 3d. per day.

(8) *N.W.R. 3E(d)*—removal from the list of tools required to be provided by plasterers of the "stock brush."

(9) *N.W.R. 6A—Daily Travelling*—payment for travelling time to be made in respect of journeys both to and from jobs.

(10) *N.W.R. 1(h)—Qualified Benders and Fixers and Tubular Scaffolders*—the wage rate for these categories to be raised to the craft rate.

(11) *N.W.R. 1(f)—Watchmen*—a substantial increase in shift rates of pay.

(12) *N.W.R. 1(i)—Female Operatives*—restoration of the fixed differential of 4d. below the standard rate for women as the means of determining the wage rate of women engaged on work other than craft processes.

(13) *London Daily Travelling Rule*—abolition of the special rule affecting operatives regularly employed at factories and shops coming within the ambit of the Supplementary Rules for Woodworking Factories and Shops.

(14) *Manchester Daily Travelling Rule*—reduction from two miles to one mile in the radius of the No. 1 "free area."

Evidence from both sides in regard to these Notices will be heard at the Statutory Meeting of the N.J.C. on January 10, 1962.

DAM CONSTRUCTION STARTED

Construction work has commenced on the dam, electrical installations and irrigation system on the river las Damas, Dominican Republic. The first stage of the dam has been contracted to Construcciones Civiles y Maritimas for \$854,000. The complete dam with hydro-electric equipment is planned for completion in 18 months.

● A further report on "The New Chicago Plan" and details of Northamptonshire County Roads Committee's bonus scheme appear on page 639. Subsequent articles include Talking of Safety, by "Dragee" (p.640) and Progress and Aims of the Modular Movement (p.641). Trade and Company News commences on page 643.

Current Construction Activities

PROJECTS • CONTRACTS • AWARDS

THIS editorial feature provides readers with a comprehensive news service covering forthcoming private and public construction work. Commencing on this page information is given concerning future projects followed by details of tenders being invited. In the third section will be found news of tenders recommended for acceptance, tenders accepted and contracts awarded. Attention is also drawn to the advertisements covering contracts and appointments appearing in the front part of the *Journal*.

BUILDING AND DECORATING (See also Housing Schemes)

Aberdeen.—North Eastern Regional Hospital Board have received Ministry approval to proceed with an extension to Aberdeen Royal Infirmary. Estimated to cost nearly £1m., the extension constitutes the first phase of a long-term development of the infirmary, the cost of which will run into several million pounds. The working drawings of the extension are expected to be completed by December, 1962, and work started on March, 1963.

Antrim.—C.C. have approved scheme for the provision of a health, welfare and library centre at Glenormley. The development will be on property recently purchased at Carnmoney Road. Estimated cost £34,500.

Armagh.—Ministry of Commerce have agreed to erect a factory adjacent to the Stonebridge Cabinet Works, for C. H. Rowntree, Stonebridge, Richill. Estimated cost £20,000.

Ashton-under-Lyne, Lancs.—B.C. have no objection to the provision of hostel for aged persons, Hurst Hall; adult training centre and hostel, Crowthorn Road and Ashton-under-Lyne West End County Primary School 2 F.E. Infant and Junior in traditional construction at rear of Earle Street, for C.C.

Ayr.—J. Gilchrist, Ltd., 14 Boswell Park, Ayr, have applied for permission to extend their bakery premises at Boswell Park.

Barking, Essex.—B.C. have approved in principle, subject to conditions, scheme for the development of Barking Hospital to provide approximately double the present capacity, for North East Metropolitan Regional Hospital Board.

Barnsley, Yorks.—B.C. recommended to approve in principle plans for new residential homes at The Views and on the St. Helen's Estate.

B.C. recommended to include in the 1962-63 programme, following schemes: new swimming baths, Athersley Estate, £144,000; Baths Hall—resisting of stage, £3,000; Baths Hall—new heating and ventilation system, £14,000; Cleansing Depot—reconstruction, Phase II, £26,000.

Barnet, Herts.—C.C. recommended to approve scheme for the provision of additional sitting room accommodation at Greenhill. Estimated cost £1,350.

Barnsley, Yorks.—B.C. recommended to include in the 1962-63 programme, scheme for proposed branch library on the Athersley estate. Estimated cost £17,000.

Biggleswade, Beds.—R.D.C. recommended to approve plans for the erection of a factory at Astwick Road, Stotfold, for Foster Instrument Co., Ltd., Letchworth, Herts.

Billingham-on-Tees, Dur.—J. E. Myers, 20 Finkle Street, Stockton-on-Tees, prepared plans for storage accommodation at Port Clarence for the Calor Gas Co. Ltd., Great Portland Street, London, W.1.

Birmingham.—City Council recommended to lease land for the erection of industrial premises at follows: Site fronting Bissell Street to Birmingham Motors Spares (Birmingham), Ltd., 99-101 Bristol Street; fronting Smith Street—Andrew Holt, Ltd., 146-7 Summer Lane, Aston Cross; corner of Adams Street and Lord Street—Floodgate Steel Flamecutting Co., Ltd., 44-45 Belmont Row, Aston Cross; corner of Hospital Street and Buckingham Street—Buckingham Plastics, Ltd., 17 Theodore Street, Aston Cross; Louisa Street and Scotland Street—Sidney Smith (Printers), Ltd., 30 Cambridge Street; Sherbourne Road—Washers, Ltd., 92-93 Irving Street.

Birmingham.—Nuffield Nursing Homes Trust have made an appeal for £200,000 for

the erection of a private nursing home at Edgbaston.

Bishop's Stortford, Herts.—C.C. recommended to approve, subject to Ministry approval, plans for extensions to the boys' secondary school. Estimated cost £20,000.

Blackburn, Lancs.—Diocesan Authorities recommended to approve the proposed new infant and junior R.C. school at Chipping. Estimated cost £21,700.

Bolton, Lancs.—Tenders are to be invited early in the new year for first phase of development scheme at Hillview estate, Astley Bridge, for Actan, Ltd. Scheme provides for three 17-storey blocks of flats, three- and six-storey blocks of shops with offices over, supermarket with bowling and community centre over, petrol filling station with motor car showrooms, hotel, restaurant, cafe, drive-in bank or public house, nursery school and lock-up garages or car ports, together with car parking space for 400 vehicles. W. S. Atkins and Partners, 158 Victoria Street, London, S.W.1 are the consulting engineers. Total estimated cost £34m.

Bournemouth, Hants.—Geens, Cross and Sims, Metropole Chambers, The Lansdowne, are the architects for a motor showroom, bowling alley, supermarket, shops, offices, etc., for the redevelopment of the Grand Hotel site for the Imperial and Grand Hotels, Ltd.

B.C. have approved subject to Ministry approval, scheme for extensions to the law courts including two courtrooms and a restaurant. Estimated cost £184,000.

Bradford, Yorks.—City Council recommended to approve the modernisation of 454 houses and 4 shops on the Odsal housing estate, estimated cost £70,000; to approve the erection of a new district library on land bounded by Bolton Road, Undercliffe Road and Leeds Road, £25,500; to approve alternative scheme for the erection of public conveniences at Brackenhill Park, £1,780; to approve provision of external fire escapes and other fire precautions at Children's Department residential establishments, £7,000.

Bury St. Edmunds, Suffolk.—East Anglian Regional Hospital Board recommended to approve the appointment of Lewis and Marshall, 62 Sidney Street, Cambridge, as quantity surveyors for extensions to maternity department at West Suffolk General Hospital and provision of accommodation for geriatric patients at St. Mary's Hospital.

Bushey, Herts.—C.C. recommended to approve, subject to Ministry approval, extensions and adaptations to the grammar school. Estimated cost £23,000.

Bushey, Herts.—C.C. recommended to approve plans for the making-up of the road fronting the Coldharbour Lane Primary School site. Estimated cost £1,250.

Belfast.—Smyth and Cowser, 31 College Gardens, Belfast, 9, are the consultant architects for modernisation of Great Victoria Street Railway Station, for the Ulster Transport Authority.

Camberwell.—B.C. will re-invite tenders for erection of a public convenience at Willowbrook Road, and new quantities will be prepared by Oswald E. Parratt and Partners, Adelaide House, London Bridge, E.C.4.

Camberley, Surrey.—It is hoped to invite tenders early in 1962 for the first stage of erection of a departmental store at Park Street and Princess Street, for William Harvey of Guildford, Ltd., in association with the Army and Navy Stores, Ltd., Robert J. Cole, 10 King's Ride, Camberley, is the architect and Robert Stevens and Co., Aldwych House, London, W.C.1, are the quantity surveyors. Total estimated cost of scheme £500,000.

Cambridge.—East Anglian Regional Hospital Board have submitted to Ministry for approval, plans for new headquarters on site of Chesterton Hospital. Architects for the scheme are Guy Aldis, regional architect, and Johns, Slater and Haward, 32 Foundation Street, Ipswich; quantity surveyors, Lewis and Marshall, 62 Sidney Street, Cambridge; structural engineers, Chas. Weiss and Partners, 123 King Street, London, W.6; and consulting engineers, Troup, Bywaters and Anders, 26 Seymour Street, London, W.1. Estimated cost £193,370.

Cambridge.—Ministry to hold an inquiry on Dec. 5 into City Council's application to erect a multi-deck car park in King Street.

Carrickfergus, Antrim.—B.C. to prepare plans and estimates for the provision of a swimming pool in the town.

Castle Ward, Northumb.—Plans are being considered by the planning authorities for a new community hall at Brunton Park for the St. Aidan's Community Hall Committee. The cost will be £17,500 and a grant of £11,464 has been offered by the county education authority. The architects are W. H. Williamson and Partners, 7 St. Mary's Place, Newcastle upon Tyne.

Coleraine, Londonderry.—B.C. to prepare draft plans for a new municipal abattoir in the borough. The building would provide for lairage, a slaughter hall and cooling hall.

Cookstown, Tyrone.—U.D.C. have approved plans for the erection of a new police station at Molesworth Road, for Ministry of Home Affairs.

Cork, Eire.—Committee of Management have been granted permission to proceed with plans for the erection of a nurses' home and out-patients' department at the North Infirmary. Estimated cost £35,000.

Crief, Perth.—British Limbless Servicemen's Association, 9 Holyrood Crescent, Glasgow, N.W., have acquired land at Croftnappock, as site for the erection of a new home. W. and J. Bourne, Ancaster Road, Callander, Perth, are the architects in conjunction with Phillimore and Jenkins, London. Estimated cost £60,000.

Croydon, Surrey.—B.C. are preparing plans for the erection of old people's homes at Monks Hill and New Addington estates. Estimated cost £77,000 each.

Town Planning Committee have approved subject to conditions, plans for the erection of a factory at 97-99 Gloucester Road, for John Norman, Ltd., 97 St. Johns Hill, London, S.W.11; demolition of 60 and 61 Leslie Park Road and erection on site of office, for F. J. H. Green, 56-59 Leslie Park Road, Croydon; demolition of 72 Lower Addiscombe Road and erection on site of offices, workshops and laboratory, for E. Holbrooke and Son (Croydon), Ltd., 72 Lower Addiscombe Road, Croydon, approve outline application, for the erection of an office block at 20-24 Wellesley Road and 7 and 12-20 Walpole Road, for Plinth Property Investments, Ltd., c/o Newman Levinson and Partners, architects, 9 Mansfield Street, Portland Place, London, W.1.

Cumberland.—C.C. is to erect a workshop the Workington mechanics' depot. Estimated cost £5,000.

Darlington, Dur.—B.C. to apply for sanction to borrow £13,942 for erection of a handicrafts centre at the junction of Yarm Road and Hundens Lane.

Darlington, Dur.—Corporation Welfare Committee have approved a further revised scheme for handicrafts centre for aged, blind and disabled people. Estimated cost £14,000.

Daventry, Northants.—B.C. recommended to negotiate an extension of contract with Midland Builders (Daventry), Ltd., Ashby Road, Daventry, for the erection of 13 garages at north of Tennyson Road and 13 at Hemans Road.

Durham.—Matthew Hayton (of the firm of Cordingley and McIntyre) 1 Owengate, Durham City, has been appointed architect for the erection of a pavilion and gymnasium at Durham Colleges, Houghall. Work is not expected to start until 1964.

East Barnet, Herts.—C.C. recommended to approve, subject to Ministry approval, sketch plans for the erection of an instalment of the ultimate replacement school, for John Hampden Secondary Modern School. Estimated cost £233,315; a new branch library at East Barnet, £39,400.

C.C. recommended to approve, subject to Ministry approval, scheme for the erection of a subsidiary health centre at Osidge Lane. Estimated cost £21,260.

East Dereham, Norfolk.—Co. Children's Committee to proceed with plans to adapt Garfield House. Estimated cost £4,000.

Edinburgh.—South Eastern Regional Hospital Board have approved in principle scheme for the erection of a three-storey building at Western General Hospital, to house the Medical Research Council's radiation Unit.

Board of Management propose to carry out a number of developments at the Royal Infirmary to improve the hospital's facilities, to include the upgrading of the surgical out-patient department. Estimated cost £20,000.

Edinburgh.—City Council have invited Alison and Hutchison and Partners, architects, 4 Rothesay Terrace, Edinburgh, 3, to prepare

plans for a big housing development in the Kirkcaldy district of Leith.

Flint.—B.C. to prepare final plans and invite tenders for the proposed new Guildhall at Church Street.

Glasgow.—John P. Coia, architect, 12 Renfield Street, Glasgow, C.2, has submitted to City Council, for approval and planning permission, scheme for the erection of a nine-storey hotel at junction of Bath Street and West Nile Street, for the Marten Development Co., Ltd.

City Council have approved plans for the erection of an hotel at 905-923 Sauchiehall Street, for Scottish Brewers, Ltd., 78 Port Dundas Road, Glasgow, C.4.

Gosforth, Northumb.—Additional accommodation for adult patients is to be built at W. J. Sanderson Orthopaedic Hospital by Newcastle Regional Hospital Board. Estimated cost £22,000. The Board's Chief Architect is P. H. Knighton.

Greenock, Renfrews.—B.C. have prepared, for submission to the Department of Health for Scotland, revised plans for the erection of an old people's home at Old Hillend.

Guildford, Surrey.—Correction. B.C. recommended to approve scheme and invite tenders for the provision of pavilion and toilets at Hamsters Farm Playing Field, (not Mitcham B.C. as stated in the issue of November 16).

Guildford, Surrey.—B.C. recommended to invite tenders for the erection of 73 garages at Bellfields and Park Barn estates and for improvements to the sports ground pavilion; invite tenders from selected contractors for the erection of a multi-storey car park.

Hackney.—B.C. recommended to approve erection of a flatted factory at De Bevoir Crescent area, subject to report of the Finance Committee and Ministry of Housing approval. Total estimated cost including site acquisition, £167,500.

B.C. recommended to authorise conversion of 102 Powerscroft Road, 103 Forburg Road and 106 Forest Road. Estimated cost £7,470.

Hadham, Herts.—C.C. recommended to approve subject to Ministry approval, phase II of the extensions to Hadham Hall Secondary Modern School. Estimated cost £17,207.

Harlow, Essex.—C.C. propose the erection of a comprehensive training centre for the mentally handicapped at Tending Road, Harlow New Town.

Hastings, Sussex.—Working drawings are being prepared for the erection of a church and church hall at the junction of Bexhill Road and Harley Shute Road, for the Trustees of the Roman Catholic Diocese of Southwark. B. Stevens and Partners, 3 Cornfield Road, Eastbourne, are the architects, C. F. Baker and Partners, 51 Gildredge Road, Eastbourne, are the quantity surveyors and M. M. Khan, 88 Rochester Row, London, S.W.1, is the structural engineer for the scheme. Estimated cost £35,000.

Hatfield, Herts.—C.C. recommended to approve, subject to Ministry approval, sketch plans for the erection of a new secondary modern school and youth wing at Brookmans Park. Estimated cost £253,256.

Havant, Hants.—Hampshire and Isle of Wight Police Authority have approved sketch plans for a new police station. Estimated cost £95,400.

Hemel Hempstead, Herts.—C.C. recommended to approve plans for the erection of a senior training centre at St. Albans Road, estimated cost £41,180; include in the 1962-63 programme, scheme for the provision of a grounds maintenance depot at Hemel Hempstead, £22,650.

C.C. recommended to approve subject to Ministry approval, plans for the extensions and adaptations to Apsley Grammar School. Estimated cost £20,550.

Hertfordshire.—C.C. recommended to approve plans for extensions at the St. Albans College of Further Education and Hertfordshire College of Building. Estimated cost £25,250.

C.C. recommended to approve, subject to Ministry approval, plans for extensions at the Mid Herts College of Further Education. Estimated cost £22,446.

Hertford.—C.C. recommended to grant £10,450 towards the cost of B.C.'s scheme for the provision of an outdoor swimming pool.

Hoddesdon, Herts.—C.C. recommended to approve, subject to Ministry approval, scheme for the erection of an instalment of the ultimate replacement school, for Wormley I.M.I. School. Estimated cost £21,650.

Honiton, Devon.—B.C. recommended to submit to Ministry for approval in principle, schemes for the erection of garages at George Street, Gerrard Crescent and Charles Road.

Ilkington.—L.C.C. approved a scheme for the conversion of unheated drying-rooms and two bedrooms at Hildrop Estate, into additional housing accommodation. Estimated cost £10,580.

Kidderminster, Worcs.—B.C. to erect 200 garages at various housing estates. Estimated cost £18,310.

King's Lynn, Norfolk.—East Anglian Regional Hospital Board recommended to approve the appointment of H. Guy Bishop, Market Place, King's Lynn, as architect for improvements to medical wards at West Norfolk and King's Lynn General Hospital.

Kingston-upon-Thames, Surrey.—B.C. recommended to submit to M.E. for grant aid, scheme for the provision of necessary buildings at Palace estate playing fields. Estimated cost £25,000.

Leatherhead, Surrey.—Co. Planning Committee have approved U.D.C.'s proposal for the erection of a pavilion and public conveniences at Kingston Road recreation ground.

Leicestershire.—C.C. to re-invite tenders early next year for the provision of a new kitchen, extra accommodation, etc., at Woodmarket House, Lutterworth. Estimated cost £12,250.

Lewisham.—B.C. recommended to invite tenders from selected firms for improvement works at Forest Hill Baths. The quantity surveyors are Oswald E. Parratt and Partners, Adelaide House, London Bridge, E.C.4. Estimated cost £17,231.

Lincoln.—Sheffield Regional Hospital Board recommended to appoint A. E. Thornton-Firkin and Partners, 2 West Parade, Lincoln, quantity surveyors for new maternity department at County Hospital.

London.—Troup and Steele, 14 Gray's Inn Square, London, W.C.1 are the architects for proposed extension of King's College at Strand and Surrey Street, Westminster for University of London King's College. Quantity surveyors are Watkins and Decker, 13 Gray's Inn Square, London, W.C.1, and consulting engineers are Oscar Faber and Partners, 4 Verulam Buildings, London, W.C.1. Estimated cost £4-£5m. Work it not expected to commence before 1965.

Londonderry.—City Council recommended to prepare plans for the construction of public conveniences at Spencer Road.

Lowestoft, Suffolk.—B.C. recommended to approve scheme in principle and in due course apply for planning permission and invite tenders for the erection of 6 shops with flats over and garages at the junction of Hollingsworth Road and Harris Avenue, Gunton estate.

Luton, Beds.—R.D.C. have approved the provision of bathrooms in nine houses at Toddington. Estimated cost £3,495.

Manchester.—Central and District Properties Ltd., Berkeley Square House, Berkeley Square, London, W.1, propose development of site which has a frontage to Market Street, Cateaton Street and Victoria Street.

Margate, Kent.—Rover Scale Models, Ltd., have received planning permission for the extension of their factory at Westwood industrial estate.

Middlesbrough, Yorks.—Ministry have approved a plan by Ceres Investments, Ltd., to convert the Regent Cinema, Parliament Road, into shops, etc. The architects are S. John Hill and Partners, 2 Whitfield Street, Gloucester.

Tenders are to be obtained by the B.C. for the erection of a branch library and flats at the junction of Newport Road and Parliament Road.

Nelson, Lancs.—County School Health Subcommittee have approved the erection of a new school clinic and child welfare centre on a site off Leeds Road. Estimated cost £33,600.

Newark, Notts.—Sheffield Regional Hospital Board recommended to appoint Cartwright, Woollatt and Partners, 6 Clarendon Street, Nottingham, architects for mortuary accommodation at Newark Hospital.

New Barnet, Herts.—C.C. recommended to negotiate, subject to Ministry approval, a tender with H. E. Winkell and Son Ltd., 63 Wood Street, Barnet for the completion of the health centre and probation office.

Newbridge, Midlothian.—Licensing Court have granted a provisional certificate for the erection of an 11-storey block consisting of 47 flats with a restaurant, lounge, cocktail bar, a bar, television lounge, various shops, and tourist and banking facilities at Ratho Station, for J. M. Calder, 22 Rutland Street, Edinburgh. T. Bowhill Gibson and Laing, 6 Manor Place, Edinburgh, are the architects.

Newcastle upon Tyne.—Alterations and additions are proposed to Shieldfield Social Club, Ingham Place. The architect is J. M. Angus, 3 Gallowgate, Newcastle upon Tyne.

A maternity and gynaecology department is proposed at Walkergate Hospital, by Regional Hospital Board. The Board's Chief Architect is P. H. Knighton.

Newcombe and Newcombe, 23 Eldon Square, Newcastle. prepared plans for church hall at Cheviot View for St. Michael's Church; it is proposed to demolish 44-6 Shields Road, Newcastle, and erect shops and offices on the

site. The architects are Jack Cotton, Ballard and Blow, 48 Pilgrim Street, Newcastle; plans have been prepared by S. W. Milburn and Partners, 9 Esplanade, Sunderland, for alterations to Martins Bank, Westgate Road, Newcastle upon Tyne.

Newport, I. of W.—Hampshire and Isle of Wight Police Authority have approved plans for new divisional police headquarters. Estimated cost £75,415.

Norwich.—Planning Committee have approved an application by the Governors of Norwich School for the construction of a shallow open swimming pool and pump house on Lower Close playing fields; plans for a five-storey office block with car parking facilities on the ground floor at 102-106 Prince of Wales Road, for the Eagle Star Insurance Co., Ltd., 1 Threadneedle Street, London, E.C.2.

Nottingham.—Sheffield Regional Hospital Board recommended to appoint Bartlett and Gray, Castle Gate Chambers, Castle Gate, Nottingham, architects for improvements to operating theatre at Hospital for Women, and Hedley B. Marshall, 8 King John Chambers, Bridlesmith Gate, Nottingham, architect for toilets at St. Ann's Hospital.

Oaklands, Herts.—C.C. recommended to approve, subject to Ministry approval, sketch plans for the erection of new hostel block and classrooms (phase II) at the Herts. Institute of Agriculture. Estimated cost £60,238.

Perth.—Dean of Guild Court have approved plans for the erection of an industrial plant at Friarton, for Liquid Fertilisers Ltd., Grange Road, Batley, Yorks.

Peterborough.—Co. Planning Committee have approved, subject to conditions, application by the Norwich Union Insurance Societies, Surrey Street, Norwich, for the erection of a six-storey block of shops and offices on site of the Corn Exchange.

Peterlee, Dur.—A contract is expected to be signed in the near future for the erection of a shopping and office block in the Town Centre, Peterlee, for Peterlee Development Corporation. The architects are W. H. Williamson and Partners, 7 St. Mary's Place, Newcastle upon Tyne.

Radlett, Herts.—C.C. recommended to approve scheme for the provision of additional sitting room accommodation at Tredinock in conjunction with the installation of the lift. Estimated cost £2,300.

C.C. recommended to approve, subject to Ministry approval, plans for the extension and adaptations to the infants' school. Estimated cost £23,550.

Renfrewshire.—Clyde Navigation Trust, 16 Robertson Street, Glasgow, C.2, are to purchase land at Bishopston for the construction of a 100,000 ton petrol and oil storage depot. A jetty for up to 25,000-ton d.w. tankers is to be built.

Parliamentary powers will have to be obtained to construct the jetty and dredge the area, but the scheme is expected to be in working order within two to three years. Estimated cost £2m.

Roxburghshire.—C.C. are to proceed with scheme for the erection of new county offices. Estimated cost £250,000.

St. Albans, Herts.—C.C. recommended to approve, subject to Ministry approval, plans for extensions at the St. Albans Beaumont Mixed Secondary School. Estimated cost £22,330; adaptations at the girls' grammar school, £16,903.

St. Ives, Hants.—R.D.C. to proceed with the modernisation of 116 pre-war houses at Bluntisham, Bury, Fenstanton, Oldhurst, Pidley, Warboys and Woodhurst.

St. Pancras.—B.C. recommended to approve proposals to reduce the brick wall on the Grafton Road frontage of the Lambie Street extension scheme to form a dwarf wall surmounted with standard railings. Estimated cost £1,200.

Sandwich, Kent.—Petbow, Ltd., have been granted an Industrial Development Certificate for the extension of their premises at Richborough.

Seaham, Dur.—D. Brown, 10 Lambton Road, Jesmond, Newcastle upon Tyne, is the architect for proposed R.C. Church at Park House.

Sheffield.—Regional Hospital Board recommended to appoint J. D. Maidment, Pembroke House, Palmerston Road, Sheffield, 10, architect for unit for chronic sick patients at Nether Edge Hospital, and L. A. Edwards and Partners, Dorking, Surrey, laundry consultants for reorganisation of laundry at Middlewood Hospital.

Shrewsbury, Salop.—Home Office have approved C.C.'s proposal to incorporate a Civil Defence group control centre in the basement of the new Shirehall, at The Column. Estimated cost £16,575.

Slaford, Lincs.—Sheffield Regional Hospital Board recommended to appoint A. E.

Thornton-Firkin and Partners, 2 West Parade, Lincoln, quantity surveyors for unit for adolescent male patients at Rauceby Hospital.

South Shields, Dur.—Ministry have approved a £4,000 scheme for the provision of sports and athletic facilities at Gypsies Green Stadium, for the B.C.

St. Hilda's Church are planning the erection of a youth centre, and negotiations are in hand for a site near the church; South Shields E.C. are also planning a youth centre at the junction of Green Lane and Wenlock Road, Simonside.

Spilsby, Lincs.—R.D.C. to proceed with schemes for improvements to pre-war council houses. Estimated cost £23,588.

Stafford.—B.C. have granted planning permission for a supermarket, shops and offices at junction of Market Street and Salter Street, for Town and City Properties Ltd., Kingsbury House, King Street, London, S.W.1; erection of warehouse and offices at Newport Road, for Jen Shoes, Ltd., Marsh Street.

Stockton-on-Tees, Dur.—Corporation Open Spaces Committee have approved in principle £13,000 scheme for roller skating rink at North End recreation Ground; plans have been submitted to the Planning Committee for alterations to the "Ragworth Hotel", Darlington Lane, for Beverley Brothers; two-storey shops and showroom at Yarm Lane for R. S. Taylor, 109 Hartburn Village, Stockton; and additions to police hostel at Yarm Road for Durham C.C.

Stoke Newington.—B.C. recommended to appoint Hurst, Peirce and Malcolm, Artillery House, Artillery Row, London, S.W.1, as the consultant structural engineers for proposed public laundry and maisonnettes at old Town Hall site, Milton Grove.

Stratford-upon-Avon, War.—B.C. recommended to appoint Frederick Gibberd, 8 Percy Street, London, W.1, as consultant architect for the preparation of scheme for the re-development of the town centre.

Sutton and Cheam, Surrey.—M. J. Gleeson (Contractors), Ltd., Haredon House, London Road, North Cheam, have submitted to B.C. for approval, outline plans for the erection of 97 flats in two 11-storey blocks and one three-storey block, with restaurant and parking facilities at "Norfolk" and "Stanstead" hotels, 61-67 Cheam Road and 6 St. James' Road.

Tonbridge, Kent.—U.D.C. to prepare scheme for the erection of 35-40 garages at Trench Wood North estate.

Trowbridge, Wilts.—Co. Town and Country Planning Committee have approved in principle use of the site of the old Rectory for a car park and office block for U.D.C.

Wallasey, Ches.—Stephenson Young and Partners, architects, Bluecoat Chambers, School Lane, Liverpool, 1 have prepared plans for the erection of a department store at Liscard Road, for Birkenhead Co-operative Society Ltd. Work is expected to commence early next year. Estimated cost £250,000.

Walsall, Staffs.—B.C. recommended to approve the provision of a sports pavilion on King George V Memorial playing fields at Bloxwich. Estimated cost £10,000.

Walsall, Staffs.—B.C. have appointed Venning, Hope and Partners, 17 Gower Street, London, W.C.1, as quantity surveyors for the preparation of plans for the erection of St. Matthew's Church Hall; hope to invite tenders shortly for the provision of a clinic at Sneyd Lane, Bloxwich, to prepare working drawings for the erection of a clinic at the junction of Pelsall Lane and Stoney Lane, Little Bloxwich.

Walthamstow, Essex.—B.C. recommended to approve scheme for the provision of a cash receiving office at Hoe Street redevelopment scheme, stage II. Estimated cost £6,600. Apply for sanction to borrow £2,400 for the erection of two workshops at Grange Road and £1,016 for two garages at Browns Road/Hoe Street junction and two at 14 Byron Road.

Ware, Herts.—C.C. recommended to approve, subject to Ministry approval, sketch plans for the completion of Ware Girls' Grammar School on the Presdales site, estimated cost £239,249; plans for conversions at 87 High Street to provide additional accommodation for the Ware Branch Library, £3,870.

Washington, Dur.—Plans approved for offices and laboratories for the Washington Chemical Co. Ltd., and it is expected that contracts will be arranged within a few weeks. Plans are by Powell Duffryn, Ltd., Proctor House, The Side, Newcastle upon Tyne.

Wellingborough, Northants.—R.D.C. have approved an extension to factory in High Street, Earls Barton, for Tresco Plastics, Ltd.

Wellington, Salop.—C.C. recommended to approve scheme for extensions to the fire station. Estimated cost £12,500.

Welwyn Garden City, Herts.—C.C. recommended to approve, subject to Ministry approval, extensions at the city high school.

Estimated cost £21500; provision of a kitchen and dining room at the Mater Dei College, £17,974.

Westbury, Wilts.—U.D.C. recommended to approve revised plans for the redevelopment of the Fontainville area for the Hammerson Group of Companies, Quadrex House, Park Lane, London, W.1.

West Molesey, Surrey.—Co. E.C. have approved sketch plans for the erection of a youth centre and homecraft centre on part of the West Molesey Secondary and Primary Schools site. Estimated cost £49,203.

Woking, Surrey.—C.C. recommended, subject to conditions, to approve Ministry of Works proposals for the erection of a telephone engineering depot at the Monument Bridge industrial site.

ELECTRICAL

Grangemouth, Stirlings.—Dean of Guild Court have granted permission for the erection of an electricity sub-station at Reddoch Road, for South of Scotland Electricity Board. Estimated cost £165,000.

Lincoln.—Sheffield Regional Hospital Board recommended to appoint Percy A. Moore, Fourways, The Square, Kinoulton, Notts., consulting engineer for electrical services at Harmston Hall Colony, Harmston.

Newark, Notts.—Sheffield Regional Hospital Board recommended to appoint Wm. Saunders and Partners, 24 Castle Gate, Newark, architects for replacement of lift at Newark Hospital.

FENCING

Kingston-upon-Thames, Surrey.—B.C. recommended to approve the provision of concrete post and panel fencing at the rear of Clarence Avenue, New Malden. Estimated cost £850.

GAS AND WATER SUPPLY

Armagh.—Provision of a water supply to the Lisdrumchor area, for R.D.C.—Messrs. Hutchinson Ltd., Tandragee, Portadown, £2,516.

Bradford, Yorks.—City Council recommended to apply to the Ministry for approval in principle, to schemes submitted by Binnie, Deacon and Gourley, consulting engineers, Artillery House, Artillery Row, London, S.W.1 for the Howstean Catchwater and Wharfe Syphon.

City Council recommended to approve the digging of trial bore holes in connection with the Howstean Catchwater scheme. Estimated cost £1,000.

Bridlington, Yorks.—Ministry of Agriculture and Fisheries to make a grant of £1,100 towards the cost of laying water mains at Muston, Nr. Filey.

HARBOURS, PIERS AND SEA DEFENCE WORKS

Bridlington, Yorks.—Borough Engineer to prepare estimates, etc., for development of junction of Belvedere sea wall and cliff in front of car-park on the south side.

Saltburn, Yorks.—U.D.C. considering the construction of a sea wall to prevent coast erosion between Skelton Beck and Huntcliffe. Estimated cost £50,000.

HEATING AND VENTILATING

Hertford.—C.C. recommended to approve scheme for the conversion of two coke-fired boilers to oil firing at Heathfield, Hertford Heath. Estimated cost £1,000.

Lincoln.—Sheffield Regional Hospital Board recommended to appoint D. R. Tunstall, 3 Whitehall Avenue, Bradford Road, Wakefield, consulting engineer for mechanical services at Harmston Hall Colony, Harmston.

Newmarket, Suffolk.—East Anglian Regional Hospital Board recommended to approve the appointment of J. Stinton Jones and Partners, 21 Gloucester Place, London, W.1, and C. W. Glover and Partners, 76 Prince of Wales Road, Norwich, as consulting engineers respectively for heating services at block "A" and installation of oil-fired heating for St. Fabian's at Newmarket General Hospital.

Watford, Herts.—C.C. recommended to approve scheme for the connection to main boiler house, of the boiler in the laundry block at Russells. Estimated cost £600.

HOUSING SCHEMES

Aberdeen.—City Council have approved plans for a 12-storey block of flats in the Gallowgate, a central area of the city which is being redeveloped. The block will comprise 132 flats, and facilities will include a shopping arcade, a children's playroom, and a laundry under part of the building. Also approved were plans for the development of an area in the centre of the Kincourt housing estate. It will include a covered shopping centre, with

10 shops opening off an arcade, a clinic library, and communal buildings.

Barnsley, Yorks.—B.C. recommended to include in the 1962-63 programme, scheme for erection of 30 houses and 100 old dwellings on the St. Helen's estate. Estimated cost £165,000.

Basingstoke, Hants.—Co. Planning Committee recommended to approve R.D.C.'s revised scheme for 54 dwellings and 42 garages at Cavalier Road, Old Basing.

Battle, Sussex.—R.D.C. to prepare revised sketch layout plans for the erection of old people's flatlets at Rose Cottages, Sedlescombe. Estimated cost £27,000.

Bentley-with-Arkesey, Yorks.—Ministry have approved the erection of old people's bungalows on a site north of Marsh Lane, Arkesey, for U.D.C.

Biggleswade, Beds.—U.D.C. recommended to approve 1962 programme comprising the erection of 24 houses and three shops for the completion of Dells estate and the redevelopment of Cowfairlands.

R.D.C. recommended to approve and submit to Ministry for approval, 1962 programme comprising the erection of 13 dwellings at Arkesey, 11 at Henlow, 13 at Langford, five at Potton, four at Shefford and 15 at Stotford.

Billingham-on-Tees, Dur.—U.D.C. have been authorised by the Ministry to proceed with a scheme for the erection of three blocks of ten-storey flats in the town centre, and quantities are to be prepared. The architects are Elder and Lester, Town Square, Billingham.

Bingham, Notts.—R.D.C. recommended to approve, for submission to Ministry for approval, layout plans for 11 two-bedroom bungalows and two three-bedroom houses at Cliff Hill Lane, Aslockton.

Brentford and Chiswick, Middx.—B.C. recommended to submit to Ministry for approval, scheme for the conversion of 83 Duke's Avenue into four flats.

Coleraine, Londonderry.—B.C. have approved revised layout plans for the redevelopment of the Killowen Street area. The plans provide for 32 two-bedroom dwellings; 49 three-bedrooms; four of four bedrooms and 10 old people's bungalows. There is also provision for 12 garages and four shops.

Croft, Yorks.—R.D.C. have approved the erection of eight houses on the site St. Cuthbert's Green, Barton, during 1962-63.

Croydon, Surrey.—B.C. recommended to approve plans for the erection of 36 flats and 36 garages at The Homestead site, Gibsons Hill, for Elsenham Properties Ltd., 28 Victoria Street, London, S.W.1; outline application for 22 houses with garages at Spout Hill, for New British Garden Estates Ltd., 171 Selborne Park Road, Addington; plans for 18 flats and 18 garages at 1 Warmister Road and 18-20 Avenue Road, for C. D. Homes Ltd., 19 Gledhow Gardens, London, S.W.5.

Daventry, Northants.—B.C. recommended to approve 1962 programme comprising the erection of 24 bungalows for old people and 10 dwellings.

Doncaster, Yorks.—R.D.C. Planning Committee have approved outline application submitted by Grantham Brundell and Farrar civil engineers, 20 South Parade, Doncaster, for residential development providing for between 300 and 400 private houses in Sproborough Park, for John Todds, Stockton-on-Tees.

Dorking, Surrey.—Ministry have approved U.D.C.'s plans for the erection of 96 flats in two blocks, a terrace of six houses and 12 garages with a car park at Goodwyns Farm estate, near Tower Hill.

Downpatrick, Down.—U.D.C. are to proceed with scheme for the erection of 80 houses on site between Church Street and Saul Street.

Dundee, Angus.—City Council are negotiating with the Scottish Special Housing Association, Ltd., 15 Palmerston Place, Edinburgh, 12, for the erection of two 15-storey blocks of flats to complete the Foggies scheme off Hatfield Road. It is hoped to invite tenders for the scheme during the next few months.

Goole, Yorks.—Ministry have authorised planning permission for development of land in Thorntree Lane, Hook, for residential purposes for Platt and Featherstone, Ltd., Boothferry Road.

Hartlepool, Dur.—Taylor and Evans, Ltd., Elswick Road, West Hartlepool, propose 42 houses at Hart Station.

Islington.—B.C. recommended to appoint E. C. P. Monson, 120 Moorgate, London, E.C.2, as the architects, and Oswald E. Parsons and Partners, Adelaide House, London Bridge, E.C.4, as the quantity surveyors for housing development at the Presbyterian Church premises, Crouch Hill.

Largs, Ayr.—Dean of Guild Court have approved plans for the erection of 75 flats and garages at the sea-front at Broomfield, for James Miller and Partners, Ltd., 18 George Street, Edinburgh, 2.

Llangefni, Anglesey.—Ministry have approved plans for the erection of 26 flats in a seven-storey block, for U.D.C.

Lowestoft, Suffolk.—B.C. recommended to submit 1962 housing programme to Ministry for approval, comprising the erection of 250 dwellings.

Manchester.—National Coal Board are to build 250 houses at Moston for miners.

March, I. of E.—U.D.C. to submit to Ministry for approval 1962 housing programme comprising 48 dwellings.

Peterborough.—City Council recommended to approve revised layout for 74 dwellings and garages at Bluebell housing estate.

Portsmouth.—Health and Housing Committee have approved scheme for 309 houses and flats on land adjoining the children's cottage homes at Cosham.

Ryton, Dur.—John Moody, Ltd., 53 Whagg Lane, Wickham, are to erect 30 houses at Woodside Road.

Solihull, War.—B.C. have submitted to Ministry for approval, schemes for 250 dwellings including 140 houses for the remainder of the central part of the Solihull Lodge Estate, near Shirley, 54 houses for the new bridge Estate and two blocks of old people's flats.

Stanley, Dur.—Contracts are to be arranged by the U.D.C. for the erection of further houses on the Lintz housing estate; layout plans have also been prepared, for submission to the planning authority, for the erection of 108 houses and 56 old people's cottages at West Shield Row.

Stockton-on-Tees, Dur.—Detailed plans by R. W. Bell and Co. Ltd., Mistletoe Road, Newcastle upon Tyne, for 40 terrace houses at Darlington Lane, have been approved.

Stourbridge, Worcs.—Ministry have approved for inclusion in the 1962 programme, schemes for the erection of five dwellings at Brook Crescent and 18 at Kingsway/Cornwall Road, for B.C.

Thedwastre, Suffolk.—R.D.C. have approved plans for 41 bungalows and garages at Genesta Drive, Thurston and four bungalows and garages at The Street, Hestett, for Thurston Building Co. Ltd., Thurston, Bury St. Edmunds.

Wellington, Som.—Ministry have approved the erection of 49 dwellings during 1962, for U.D.C. 32 will be one-bedroom flats for old people, which, with a warden's house, will be put up on Bulford Field, and the rest will be two-bedroom flats for Parklands Road.

Wenlock, Salop.—B.C. to submit to Ministry for approval, layout plans for 22 houses, bungalows and flats at Back Lane housing site submitted by R. W. Beard, architect, Abbots House Courtyard, Butchers Row, Shrewsbury.

PLAYING FIELDS, PARKS, ETC.

Barnsley, Yorks.—B.C. recommended to include in the 1962-63 programme, following schemes: White Cross Recreation Ground, Kendray—Phase V (including pavilion), £23,000; Athersley North Recreation ground—Phase IV, £10,000; Pogmore Recreation Ground—Phase II—general development, £7,750.

Inverness.—Parks and Cemeteries Committee have approved plans for the construction of a playing field at Dalneigh. Estimated cost £14,920.

Richmond, Surrey.—B.C. recommended to approve plans for improvement and grassing, etc. of land at Kew Road roundabout. Estimated cost £1,000.

ROADS, BRIDGES AND SITE WORKS

Andover, Hants.—B.C. recommended to approve scheme for making-up Upper Drove and part of Harroway; prepare plans for making-up Chestnut Avenue, Wellesley Road and Oak Bank.

Barnsley, Yorks.—B.C. recommended to include in the 1962-63 programme, following schemes: roads and sewers for approximately 300 further dwellings on the St. Helen's Estate, £115,000; roads and sewers on the Dillington (Worsbrough Common) site, £10,000; road works at: Doncaster Road, £20,000; Canal Bridges—Littleworth Lane and Doncaster Road, £8,000; Rotherham Road—Canal Bridge and Railway Bridge, £5,000.

Birmingham.—City Council recommended to approve, subject to Ministry approval, schemes for the construction of a road to be known as Parkway in the Nechells Green redevelopment area, estimated cost £810,000; reconstruction of Wrottesley Street and Bath Passage, £4,570 and £2,430 respectively; widening and reconstruction of The Radleys, Sheldon, £79,300; widening of Church Street, between Edmund Street and Cornwall Street, £10,400.

Public Works Committee have approved scheme for a pedestrian subway under a new entrance planned for Queen's Drive, New Street Station, on the Smallbrook Ringway, work on which it is hoped will commence in the next two years. Estimated cost £30,000.

Bishop's Stortford, Herts.—C.C. recommended to approve scheme for the provision of a lay-by to accommodate coaches along Parsonage Lane frontage of the secondary modern girl's school. Estimated cost £2,041.

Bradford, Yorks.—Public Works Committee have approved layout of subways to be constructed at the junction of Leeds Road and Petergate in connection with the proposed Central Ring Road.

Bridlington, Yorks.—B.C. recommended to approve the reconstruction of the first 260 yards of Mill Lane, from Marton Road. Estimated cost £6,560.

B.C. recommended to apply to the Ministry and the East Riding C.C. for approval of scheme for levelling-off Bessingby Road and constructing a dual carriageway. Estimated cost £57,500.

Brookmans Park, Herts.—C.C. recommended to approve scheme for the making-up of Peplins Way fronting the primary school. Estimated cost £1,120.

Dublin, Eire.—City Council propose the construction of a subway in O'Connell Street. Estimated cost £50,000.

East Riding.—C.C. have approved in principle scheme for improving the Bridlington—Scarborough road from the Dotterel Inn at Reighton to its junction with Mill Lane, Filey. Estimated cost £245,000.

Guildford, Surrey.—B.C. recommended to approve for submission to M.T. revised scheme for the improvement of Bridge Street at the junction with Farnham Road including the construction of a subway, estimated cost £91,000; approve plans and specifications for the making-up of Beckingham Road (part); raise no objection to C.C.'s scheme for the widening of Boxgrove Road (part).

Kidderminster, Worcs.—C.C. have approved scheme prepared by B.C. for improving Wilden Lane. Estimated cost £30,000.

Leicester.—Traffic Committee have approved the construction of a dual carriageway road between Church Gate and Blackbird Road and the widening of Lower Church Gate between Sanvey Gate and traffic Island on the Central Ring Road.

Letchworth, Herts.—C.C. recommended to approve, subject to Ministry approval, plans for the erection of a new library for the Letchworth College of Technology. Estimated cost £20,700.

Letchworth, Herts.—C.C. recommended to approve scheme for the making-up of the extension of Nevells Road. Estimated cost £3,700.

Lindsey.—C.C. have approved schemes for widening, re-aligning and resurfacing Medge Hall Road, Crowle and maintenance works to the swing bridge at Crowle. Estimated cost £10,000 and £1,200 respectively.

Peterborough.—City Council recommended to prepare scheme for making-up First Drove, Fengate; apply for sanction to borrow £11,000 for extension of Wentworth Road through to Albert Place and £4,500 for improvement of Wharf Road.

Rotherham, Yorks.—Sheffield Regional Hospital Board recommended to appoint Shepherd, Fowler and Marshall, 15 St. James Row, Sheffield, 1, surveyors for site survey development at Thundercliff Grange, Kimberworth.

St. Albans, Herts.—C.C. recommended to approve, subject to grant aid, scheme for the improvement of Colney Heath Lane, B.6426. Estimated cost £22,670.

Stepney.—L.C.C. approved a scheme for the improvement of the junction of Mile End Road and Burdett Road. Estimated cost £45,000.

Stevenage New Town, Herts.—C.C. recommended to approve, subject to grant aid, a contribution of £36,443 towards the cost of the extension of Road 2 (Monkswood Way) southwards from Road 3 to connect to the Great North Road, A.1, for Development Corporation.

Walsall, Staffs.—B.C. recommended to approve and submit to M.T. for approval, scheme for the construction of Church Hill Ring Road.

Watford, Herts.—C.C. recommended to grant £1,708 towards the cost of B.C.'s scheme for the improvement of Beechen Grove from Sutton Road to Goates Lane.

West Lothian.—C.C. have approved plans for the construction of the additional section of the southern approach to the Forth Road Bridge between Dolphington and the east side of the river Almond at Crumoch Bridge.

Wigan, Lancs.—B.C. to construct roads and sewers at Whitely. Estimated cost £31,000.

Worcestershire.—C.C. have approved in principle scheme for improving part of the Stourport to Great Whiteley Road. Estimated cost £35,000.

SEWERAGE, SEWAGE AND REFUSE DISPOSAL

Aitcham, Salop.—R.D.C. to submit to Ministry for approval sewerage scheme for the villages of Annscroft, Longden and Hookgate. Estimated cost £50,545.

Banstead, Surrey.—U.D.C. to proceed with scheme for the conversion of the Kingswood Warren area from cesspool to main drainage.

Barnsley, Yorks.—B.C. recommended to include in the 1962-63 programme, following schemes: Wilson Borehole: Treatment plant, building and ancillary work, £17,368; Borehole L: Pump, temporary buildings, washout pipes, etc., £5,000; 9-inch main from Borehole L to Oxspring, £9,500; 15-inch main from Oxspring to Wortley Service Reservoir, £48,000; mains to and from Staincross Service Reservoir, £18,500.

Birmingham.—City Council recommended to approve, subject to Ministry approval, scheme for laying foul and surface water sewers in Genners Lane and Field Lane, Bartley Green. Estimated cost £8,000.

Cork, Eire.—C.C. are to proceed with plans for the construction of a sewerage scheme for the village of Inchigeela.

Croydon, Surrey.—B.C. recommended to approve scheme for the extension of sewer at North End, etc. Estimated cost £2,000.

Honiton, Devon.—B.C. recommended to apply for sanction to borrow £120,000 for the construction of new sewage disposal works.

Lincoln.—Witham First District Internal Drainage Board to submit to Ministry for grant aid, an improvement scheme to Reepham Drain. Estimated cost £3,500.

Lowestoft, Suffolk.—B.C. recommended to approve plans for the construction of soil sewers in Moyes Road.

Luton, Beds.—R.D.C. have approved site for a sewage disposal works at Hockliffe.

Stone, Staffs.—R.D.C. to prepare a sewage disposal scheme for Rough Close. Estimated cost £10,460.

Spilsby, Lincs.—R.D.C. have deferred sewerage schemes for Spilsby, Burgh-le-Marsh and Wainfleet area (part). Estimated cost £129,365, £113,333 and £94,000 respectively.

Tenterden, Kent.—B.C. have approved the construction of a new system of foul sewers at High Street and St. Michaels. Estimated cost £79,000.

Wigan, Lancs.—B.C. to extend the Tunstall Lane culvert at Pemberton. Estimated cost £2,200.

Wigstone, Leics.—U.D.C. have approved in principle scheme for extensions to the sewage disposal works. Estimated cost £300,000.

Willesden, Middx.—B.C. recommended to complete detail plans and invite tenders in due course, for flood relief works in Wrentham Avenue and Chamberlayne Road area (section 2).

STREET LIGHTING

Chester.—City Council recommended to apply for sanction to borrow £920 for the provision of class A sodium lighting in Sandy Lane.

Dundee, Angus.—Lighting Committee have approved scheme for conversion from gas to electric street lighting for a wide area in Lochee. Estimated cost £10,794.

Fulham.—B.C. recommended to authorise an expenditure of about £60,000 on Stages 4 and 5 of the side street lighting improvement programme to be carried out during 1962-63 and 1963-64.

Wortley, Yorks.—R.D.C. Engineer has prepared street lighting scheme for the next twelve months. Estimated cost £7,500.

CONTRACTS

Full details of the Contracts marked * will be found in our Advertisement Columns.

BUILDING AND DECORATING

(See also Housing Schemes)

Aberdeen.—Several works involved in the erection of (a) eight lock-up garages at Galt-side Drive, Garthdee, (b) 20 lock-up garages at Balnagask Road, and (c) 20 lock-up garages at Moir Green, Cummings Park, for City Council. Documents from the City Architect, 11 Broad Street, Aberdeen. Tenders by Dec. 8.

Aberdeen.—Extension and improvement of the restaurant and kitchen and construction of a new tea room at the Beach Ballroom, for City Council. Applications, in writing, to the City Architect, 11 Broad Street, Aberdeen. Tenders by December 18.

Aberdeen.—Erection of six shops and 20 houses at Kaimhill housing scheme (central area) section 3, for City Council. Excavator, mason, brick and concrete; carpenter and joiner; roof tiler and roughcast; plumber; lath and plaster; electrical; glazier and supply and installation of fireplaces. Application, in writing, to the City Architect, 11 Broad Street, Aberdeen. Tenders by December 15.

Armagh.—Construction of an advance factory at Armagh, for the Ministry of

Commerce. Documents from the Ministry of Commerce, Room 30B, Chichester House, 64 Chichester Street, Belfast, 1. Deposit £3 3s. Plans also seen at the local office of the Ministry of Labour and National Insurance, Armagh. Tenders by December 18.

Belfast.—Conversion to a shop of an existing Arcon type prefabricated bungalow at 1 Loughside Bungalows, Shore Road, for City Council. Documents from the City Architect's Department, Housing Section, 97 Townsend Street, Belfast, 13. Deposit £3, cheques payable to Belfast Corporation. Tenders by December 8.

Belfast.—Following for City Council: (a) Redecoration work, at Hemsworth Square Primary School, Conlig Street; (b) supply and fixing of metal windows, etc., at Somerdale Secondary School, Somerdale Park. Documents from the City Architect's Department, 40 Academy Street, Belfast, 1. Tenders by December 14.

Bognor Regis, Sussex.—Provision of improved toilet facilities and incidental works at (a) Felpham Recreation Ground and (b) Hawthorn Road Recreation Ground, for U.D.C. Documents from the Engineer and Surveyor, Town Hall, Bognor Regis. Deposit £2 2s. each scheme. Tenders by December 27.

Bournemouth, Hants.—Replacement of the rooflight in the ballroom at the Pavilion, for B.C. Documents from the Borough Architect's Office, Room 106, Town Hall, Bournemouth. Deposit £1 1s. Tenders by December 21.

Brighouse, Yorks.—Erection of public conveniences, Towngate, Clifton, for B.C. Documents from H. A. Sneezum, borough engineer, Commercial Street, Brighouse. Deposit £1. Tenders by December 18.

Buckinghamshire.—Following for C.C.: (1) Aylesbury—erection of a children's home, estimated cost approximately £30,000. Bills of quantities available January 8. Tenders by January 29; (2) Chesham—erection of phase II of the Lowndes S.M. School, estimated cost approximately £45,000. Bills of quantities available January 1. Tenders by January 29; (3) Grendon Underwood—erection of a primary school, estimated cost approximately £43,000. Bills of quantities available January 1. Tenders by January 29; (4) High Wycombe—erection of phase II of the Wellesbourne S.M. School, estimated cost approximately £45,000. Bills of quantities available January 1. Tenders by January 29; (5) Langley—erection of a branch library, estimated cost approximately £22,000. Bills of quantities available January 1. Tenders by January 29; (6) Langley—erection of a police station, estimated cost approximately £25,000. Bills of quantities available January 1. Tenders by January 29; (7) Naphill—erection of a county primary school, estimated cost approximately £54,000. Bills of quantities available January 1. Tenders by January 29; (8) Princes Risborough—erection of a section police station and flat, estimated cost approximately £7,000. Bills of quantities available December 18. Tenders by January 15; (9) Slough—erection of a clinic and centre at Parlant Park, estimated cost approximately £17,000. Bills of quantities available December 15. Tenders by January 15; (10) Slough—erection of a clinic and centre at Britwell estate, estimated cost approximately £17,000. Bills of quantities available December 15. Tenders by January 15; (11) Chesham—erection of a carpentry shop at the technical school, estimated cost approximately £800. Specification available January 8. Tenders by January 29; (12) High Wycombe—conversion to two flats of Four Winds, Cressex Road, estimated cost approximately £1,300. Specification available December 15. Tenders by January 15; (13) Holmer Green—adaptation of hut to laboratory, estimated cost approximately £3,000. Specification available January 1. Tenders by January 29; (14) Newport Pagnell—alterations to the police station, estimated cost approximately £4,000. Specification available January 1. Tenders by January 29; (15) Slough—improvements to sanitation at the Godolphin Junior School, estimated cost approximately £2,000. Specification available January 1. Tenders by January 29. Contractors should make application to the County Architect, County Offices, Aylesbury, indicating for which works they wish to tender, as soon as possible. Deposit £3 3s. for each project 1 to 10 inclusive.

Bury, Lancs.—Internal decoration of Hunley Mount Clinic, for B.C. Details from Borough Engineer, Town Hall, Bury. Tenders by December 9.

Bury, Lancs.—Internal decoration of Ashmeadow Youth Centre, Rochdale Road, for B.C. Details from Borough Engineer, Town Hall, Bury. Tenders by December 9.

Cambridge.—Exterior painting of 1,601 dwellings in various parts of the City, for City Council. The dwellings are in 26 groups, the largest comprising 148 and the smallest 16 dwellings. Painting contractors may tender for one or more group of dwellings. Docu-

ments from the City Engineer and Surveyor, The Guildhall, Cambridge. Tenders by December 8.

Cardiff.—Supply and fixing of curtain walling to the Brynnyon Approved School, extensions at Dinas Powis, near Cardiff, for City Council. Documents from the City Architect's Department, Municipal Offices, Greyfriars Road, Cardiff. Deposit £2 2s. cheques payable to the Cardiff Corporation and crossed "Not Negotiable and Co." Tenders by December 6.

Cardiff.—Construction of the public weighbridge at the junction of Corporation and Avondale Roads, for City Council. The works comprise the construction of the office building and pits and ducts to accommodate a twin platform weighbridge. Documents from City Architect's Department, Municipal Offices, Greyfriars Road, Cardiff. Deposit £2 2s., cheques payable to the Cardiff Corporation and crossed "Not negotiable and Co." Tenders by December 8.

Carlisle, Cumb.—Erection of Harraby Community and Youth Centre, which is a new single-storey building in traditional construction, area approximately 9,960 sq. ft., for City Council. Documents available from the City Surveyor, 18 Fisher Street, Carlisle, after December 9. Tenders by January 15.

Carlow, Eire.—Erection of a vocational school at Muine-bheag, for the Co. Vocational Education Committee. Plans seen at the office of Charles J. Quinn, architect, 86 O'Connell Street, Limerick, or at the Committee's Office in Carlow. Documents from Dermot J. O'Brien, quantity surveyor, 87 O'Connell Street, Limerick. Deposit £10 10s. cash or cheque. Tenders by December 18.

Chelmsford, Essex.—External decoration of the public library, Duke Street, for B.C. Documents from the Borough Engineer, Municipal Offices, Coval Lane, Chelmsford. Deposit £2 2s., cheques payable to Chelmsford Corporation. Tenders by December 28.

Cornwall.—Approved list of contractors for building works estimated cost £20,000 and over for C.C. Refer to our issue of November 23, page 474. Applications by December 11.

Cornwall.—Works estimated to cost less than £1,000, for C.C. These works will consist of maintenance repairs, small improvements and extension, external and internal decorations and minor electrical installations to County Council buildings. County Council have an approved list of contractors, competent builders, decorators, plumbers and electricians who are prepared to give fixed price tenders upon request for such works, and any contractor who is not at present on the approved list and wishes to be considered for inclusion should make application to The County Architect, County Hall, Truro, by December 11. Applicants should state: (a) Extent of area in which they are prepared to undertake work; (b) extent and type of work undertaken (building, decorating, plumbing, etc.); (c) available labour force normally employed, and (d) if not already on Council's approved list not engaged on County Council work during recent years, applications should be supported by the names and addresses of two referees. Applicants already on the approved list, but do not wish to continue to tender for County Council work should notify the County Architect of their withdrawal.

Derbyshire.—Construction of a garage 58ft. long by 29ft. wide in brickwork with asbestos roof, at Highways Depot, Ashbourne, for C.C. Documents from S. Mehew, county surveyor, County Offices, Matlock. Deposit £2, cheques payable to Council. Tenders by December 19.

Dublin, Eire.—Supply and erection of steel trusses and purlins for a proposed two-storey building at St. Brendan's Hospital, for the Health Authority. Documents from Vincent Kelly, architect, 87 Merion Square, Dublin, or Stanislaus Kenny, structural engineer, 35 St. Stephen's Green, Dublin. Deposit £25 crossed cheque payable to Dublin Health Authority. Tenders by December 21.

Dublin, Eire.—Supply and erection of pre-cast and prestressed concrete framework for a proposed two-storey building at St. Brendan's Hospital, for the Health Authority. Documents from Vincent Kelly, architect, 87 Merion Square, Dublin, or Stanislaus Kenny, structural engineer, 35 St. Stephen's Green, Dublin. Deposit £50 crossed cheque payable to the Dublin Health Authority. Tenders by December 21.

Durham.—Following for C.C.: Hartlepool Fire Station, erection; Lanchester Junior and Infants (Controlled) School, (a) polyflor 90; (b) built-up felt roofing; (c) aluminium windows; (d) heating and hot water installation; (e) electrical installation; (f) sun blinds, curtains and fixed furniture; Wolviston County School adaptations; Hebburn Technical College, erection of gymnasium; Chester-le-Street Grammar School, adaptations to form grammar technical school; Annfield Plain Girls and Boys Modern School, additions and altera-

tions. Applications to County Architect, South Street, Durham, by December 6.

East Sussex.—Erection of a home for 40 aged persons, at Hove, for C.C. Apply to the County Architect, County Hall, Lewes, by December 14. Selected contractors will be provided with bill of quantities on December 27.

East Sussex.—Erection of a home for 40 aged persons, at Hailsham, for C.C. Apply to the County Architect, County Hall, Lewes, by December 5.

East Sussex.—Erection of a senior hostel at Portslade, for C.C. Apply to the County Architect, County Hall, Lewes, by December 5. Selected contractors will be provided with bills of quantities on December 29.

Edinburgh.—Trial bores at St. Leonard's (Arthur Street) comprehensive development area, Beaumont Place site, for City Council. Applications, in writing, to the City Architect, City Chambers, Edinburgh, 1, by December 4.

Ellesmere Port, Ches.—Erection of public convenience block at Meadow Lane, for R.C. Tenders by December 27.

Ely, Cambs.—Provision of bathrooms (including hot water installations, water-closets, drainage, etc.) in 32 houses at Covey, Witcham and Little Thetford (in which parish the work also includes a sewage treatment plant), for R.D.C. Documents from the Engineer and Surveyor, Rural Council Offices, 11 Lynn Road, Ely. Deposit £5 5s. Tenders by December 11.

Enniskillen, Fermanagh.—Supply and fixing of purpose-made metal windows and doors at the extension to St. Michael's Grammar School. Documents from P. and B. Gregory, 5 Crescent Gardens, University Road, Belfast, 7. Tenders by December 5.

Essex.—Following, for C.C.: (1) Ambulance stations—(a) Thurrock, (b) Harlow, (c) Clacton-on-Sea. In traditional construction, estimated costs: (a) £20,000, (b) £21,000, (c) £15,000; (2) Harlow Comprehensive Training Centre. In traditional construction, estimated cost £38,000; (3) Harold Wood Hostel for Subnormal Male Adults. In traditional construction, estimated cost £35,000; (4) Stanway Hostel for Subnormal Female Adults, Colchester. In traditional construction, estimated cost £32,000. These contracts will be carried out by the following architects: (1) R. Ferguson, London Road, Chelmsford; (2) Yorke, Rosenberg and Mardall, Hyde Park Place, London, W.2; (3) and (4), Howard V. Lobb and Partners, Gower Street, London, W.C.1. Separate applications for each contract to H. Conolly, county architect, County Hall, Chelmsford, by December 2.

Essex.—One pair type A police houses at Avon Road, Chelmsford, and at Harrison Close, Hutton; estimated cost of each pair, £5,375, for C.C. Separate applications to H. Conolly, county architect, County Hall, Chelmsford, by December 2.

Essex.—Erection of Basildon police station for C.C., comprising a three-storey reinforced concrete framed building with reinforced concrete and brick panel infillings, also single-storey cell block, garage and outbuildings, estimated cost £125,000. Applications to H. Conolly, county architect, County Hall, Chelmsford, by December 2.

Gateshead, Dur.—Convert ward 6 at the Sheriff Hill Hospital into a children's unit for Newcastle Regional Hospital Board. The work involves adaptations within, and small extensions to an existing single-storey ward block, and total floor area is approximately 4,200 sq. ft. Documents will be ready for issue to contractors during December, and it is expected that it will be possible for building operations to commence towards the end of January. Submit names to the Secretary of the Board, Benfield Road, Newcastle upon Tyne, 6, by December 8.

Harlow, Essex.—Construction of paddling pool and siteworks at Kings Head Field, for U.D.C. Deposit £2 2s. Tenders by December 11.

Harrow, Middx.—School painting, for B.C. Applications by December 15.

Haslingden, Lancs.—Internal painting of the public baths, East Bank Avenue, for B.C. Documents from the Borough Surveyor, Municipal Offices, Bury Road, Haslingden. Work of painting is to be carried out between January 22 and February 24, 1962. Tenders by December 9.

Heston and Isleworth, Middx.—Installation of wash hand basins in 94 houses on the Martindale estate, for B.C. Tenders by December 28.

Heston and Isleworth, Middx.—Reroofing, etc., at Isleworth swimming bath, for B.C. Tenders by December 12.

Holywood, Down.—Plumbing work in connection with proposed sports pavilion at Seapark Recreation Grounds, for U.D.C. Documents from the Town Surveyor, Council Offices, Holywood. Tenders by December 4.

Huddersfield, Yorks.—Erection of county secondary school, for B.C. Submit names by December 6. Deposit £2 2s. Tenders by January 30.

Kirkcudbright.—Alterations and additions to Dalbeattie Primary School, for C.C. The additions include two link buildings joining the three existing blocks and comprising five classrooms with toilet provision. The alterations include major works on the centre block and minor works on the east and west blocks: Digger, mason, brick, etc.; carpenter, joiner, ironmongery work; slater, roughcast; bituminous felt roofing; plumber; heating engineer; electrical; plaster and tiler; painter; glazier. Proposals for the submission of all-in tenders will be considered. Contractors desirous of tendering should be prepared to satisfy the County Council of their ability to carry out the work expeditiously and in a competent manner. Application to Arthur Hunter, county architect, County Offices, Kirkcudbright, by December 7, indicating the tenders for which they wish to receive schedules.

Lancashire.—Following for C.C.: Erection of a single-storey traditional building with felted roof, including drainage, services, car park, and finishes, to be used for police purposes, at Church, near Accrington; conversion of weights and measures office into garage, erection of brick garage, and alterations to existing police house, at Longridge, near Preston; extensions to form additional classroom and toilet accommodation, at Urmston County Primary School—work is in traditional construction with felted roof and includes drainage, services and finishes. Applications to the County Architect, P.O. Box 26, County Hall, Preston, by December 4.

Leicestershire.—Builders work in connection with fire precautions at Hinckley Westfield County Junior School, for C.C. Applications to County Architect, 123 London Road, Leicester, by December 4. Deposit £2 2s. Tenders by December 18.

Londonderry.—Following for C.C. Balteagh P.S. Residence, general repairs; Carnalridge P.S. Extension, part external painting; Dungiven Inter. Residence, solid fuel water boiler; Maydown Primary School, extension and improvements, electrical installation, and heating and plumbing installation; Richardson Primary School, mains water installation. Documents from the offices of the County Education Architect, The Manor House, Coleraine. Deposit £1 each contract. Tenders by December 11.

Major and St. Mellons, Mon.—Erection of a mortuary at Bassaleg, comprising building, fencing, drainage and access road, for R.D.C. Documents from the Engineer, Council Offices, Baneswell, Newport, Mon. Deposit £1 1s. Tenders by December 21.

Maidenhead, Berks.—Erection of a park keeper's lodge and garage, with all necessary drainage and siteworks, contract 8A, for B.C. Documents from Borough Engineer and Surveyor, Town Hall, Maidenhead. Deposit £2 2s. Tenders by December 22.

Manchester.—Supply and erection of a reinforced concrete framed building to form new barn at Asphodel Farm, Carrington, for City Council. Documents from the City Architect, P.O. Box 488, Town Hall. Tenders by December 8.

Merthyr Tydfil, Glam.—Alterations and extensions to Georgetown Secondary and Infants' School, for B.C. Documents from Borough Architect, Town Hall, Merthyr Tydfil. Deposit £1. Tenders by December 15.

Newtownards, Down.—Design, supply, fabrication, and erection of structural steelwork, etc., for a factory at Newtownards, for Ministry of Commerce. Tenderers should note that tenders will not be considered which are not accompanied by steelwork designs. Documents from Room 28, Chichester House, 64 Chichester Street, Belfast, 1. Tenders by Dec. 12.

Norfolk.—Erection of a fire station (floor area 1,700 super. ft.) at Sheringham, for C.C. Submit names to the County Architect, 27 Thorpe Road, Norwich, by December 5. Selected contractors will be supplied with a bill of quantities about December 14.

Northampton.—Internal renovations, at Gladstone Schools, Stretefield Road, for E.C. Apply to the Borough Architect, Guildhall, Northampton.

Northern Ireland.—Construction of two garages together with ancillary works at Killeel, for the Northern Ireland Housing Trust. Documents from the Offices of the Trust, 12 Hope Street, Belfast, 12. Tenders by Dec. 11.

Nottingham.—Construction of public toilets at Queens Drive, Wilford, for City Council. Documents from the City Engineer, The Guildhall, Nottingham. Deposit £2. Tenders by December 19.

Oakham, Rutland.—Erection of a bus shelter near the entrance to R.A.F. Station, Cottemore, for R.D.C. Documents from the Surveyor, Council Offices, Cottemore, Oakham. Tenders by Dec. 9.

Peterborough.—Modernisation of a cottage on Slape Farm, Eye, for C.C. Documents from the County Land Agent, Walden House, Huntingdon. Tenders by Dec. 20.

Radcliffe, Lancs.—Supplying and laying p.v.c. vinyl asbestos or flexible p.v.c. floor tiles to the Public Library extension, for B.C. Written application to the Borough Engineer and Surveyor, Town Hall, Radcliffe. Tenders by December 9.

Redditch, Worcs.—Erection of an extension of 935 super. ft. to the administration block at Ipsley Sewage works, Studley Road, for U.D.C. Written application to R. A. Noonan, engineer and surveyor, "Old Crest," South Street, Redditch. Deposit £2 2s. Tenders by December 18.

Rochdale, Lancs.—Internal painting of various schools, for B.C. Particulars from Borough Surveyor, Town Hall, Rochdale. Tenders by Dec. 6.

Roscommon, Eire.—Erection of a new factory, together with all services at Roscommon, for Roscoe Leather and Plastic Industries, Ltd. Documents from Morris and Kavanagh, chartered quantity surveyors, 62 Harcourt Street, Dublin. Deposit £10. Plans seen at the offices of P. O'Muireadhaigh, architect, 21 Merrion Square, Dublin; or his Roscommon associate, B. F. and M. O'Carroll, architects, Eagle Lodge, Roscommon, and at the office of the quantity surveyors. Tenders by December 12.

Salford, Lancs.—Erection of Oaklands School, for City Council. Documents from Richard Byrom, architect, 9 Victoria Buildings, Silver Street, Bury. Deposit £3 3s. Tenders by January 2.

Salford, Lancs.—Erection of Salford Technical High School, for City Council. Documents from Cruickshank and Seward, architects, Royal London House, 196 Deansgate, Manchester, 3 (available January 9). Deposit £3 3s. Tenders by February 6.

Salford, Lancs.—Alterations and extensions to Seedley County Primary School, for City Council. Deposit £3 3s. Tenders by January 3.

Stoke-on-Trent, Staffs.—Following, for City Council. New buildings: New shops and offices, adjoining gas showrooms on restricted site, Parliament Row, Parliament Place and Tontine Square, Hanley; Berryhill C.P. Junior School, first instalment of new three F.E. school. Improvements: Grove C.S. School additional classroom accommodation; Grange C.S. School (Meir), new kitchen; Tunstall Park, improved messroom facilities and extensions to stores; Blurton Farm, adaptations to Parks Depot. Written application to the City Architect, Kingsway Chambers, Kingsway. Stoke-on-Trent, by December 5. Deposit £2 each contract. Tenders by January 8.

Stoke-on-Trent, Staffs.—Following for City Council. (a) Improvements: Keele Nurseries, extensions to greenhouse, 3; Cobridge Park, new messroom, stores, etc.; Stanley Pool, near Leek, outdoor pursuits camp, timber pavilion 30ft. x 18ft. (b) Heating installations: Home for the aged and infirm, Berryhill, heating and h.w.s. installations. (c) Electrical installations: Home for the aged and infirm, Berryhill, electrical installations; Princes Hall, Burslem, lighting of corridors and staircase; Tunstall Town Hall, lighting of corridors, etc.; Children's Homes, Penkhill, electric fires to staff bedrooms; Hanley 1st and 2nd class swimming baths, flood lighting. Written applications to the City Architect, Kingsway Chambers, Kingsway, Stoke-on-Trent, by December 5. Deposit £2 each contract. Electrical contractors tendering for (c) must be members of the National Federated Electrical Association or be on the roll of approved electrical installation contractors of the national inspection council for electrical installation contracting. Tenders by January 5.

Sunderland, Dur.—Alterations to Priestman Building—Sunderland Technical College, for B.C. Documents from Borough Architect, Grange House, Stockton Road, Sunderland. Deposit £2 2s., cheques payable to Sunderland Corporation. Tenders by December 14.

Wakefield, Yorks.—External repainting of the Council Offices at 18 St. John's North, for R.D.C. Tenderers should inspect the Council Offices and the tenders should be a lump sum price based on completion before April 1, 1962. Specification from J. T. Payne, engineer to the Council, Council Offices.

Walsall, Staffs.—Erection of two shops with maisonnettes over, at Stephenson Square, Beechdale estate, for B.C., which will be of load-bearing brick construction and timber roof with concrete purlins. This is a three-storey block: Shops and store each 550 sq. ft.; maisonnettes each 940 sq. ft. Documents from M. E. Habershon, borough engineer and surveyor, Council House, Walsall. Deposit £2 2s. Tenders by December 29.

West Riding.—Conversion of cloakroom to scullery at Normanton Common Infants' School, for C.C. Documents from the Divisional Architect, Bishopgarth, Westfield Road, Wakefield. Tenders by January 2.

West Riding.—Rebuilding of the boundary wall and providing and fixing new double gates at Goole Alexandra Street Primary School, for C.C. Documents from J. H.

Crabtree, Education Offices, Goole. Tenders by December 15.

West Sussex.—Four classrooms, assembly hall and kitchen block extension to primary school at Chichester (North), for C.C. The super structure of classrooms and assembly hall will be prefabricated and erected by a selected specialist firm (job 7092). Quantities will be issued on or about February 8. Applications to the County Architect, County Hall, Chichester, by December 8.

Witney, Oxon.—Installation of bathrooms and hot water systems in four pre-war Council houses at The Downs, Standlake, for R.D.C. Documents from the Engineer and Surveyor, 28c High Street, Witney. Tenders by Dec. 20.

CLOTHING AND TEXTILES

Perth.—Supply of uniforms, shirts, collars, ties and gloves, for City Council. Documents from Town Clerk, City Chambers, Perth.

DEMOLITION

Amphill, Beds.—Demolition of 45-51 Silver End Road, Haynes, and general clearing of the site, for R.D.C. Documents from the Engineer and Surveyor, The Limes, 12 Dunstable Street, Amphill, Bedford. Tenders by December 11.

Gainsborough, Lincs.—Demolition of 3, 5, 5A, 7 and late 9 Market Street, for U.D.C. Tenders by December 11.

Richmond, Surrey.—Demolition of properties known as 32, 32a, 34, 36, 38, 40 and 42 Grosvenor Road, for B.C. Documents from the Borough Engineer and Surveyor, King's Road, Richmond, Surrey, with whom an appointment may be made to inspect the properties. Tenders by Dec. 6.

Sheffield.—Demolition of approximately 126 buildings and site clearance, Hodgson Street, Young Street, Moore Street and Clarence Street for City Council. Documents from The Estates Surveyor, Town Hall, Sheffield 1. Deposit £2 2s. cheques payable to Council. Contractors who have not previously undertaken work for the Sheffield Corporation will be required to provide evidence of their capability. Tenders by December 7.

Swansea.—Demolition of various properties in the town centre and Dyfatty, for B.C. Documents from the Borough Engineer and Surveyor, St. Faith's Hall, St. Helen's Road, Swansea. Deposit £2. Tenders by December 8.

Wrexham, Denbighs.—Demolition of (a) former Guildhall and (b) former Borough Surveyor's office, Chester Street, for B.C. Deposit £1 1s. each contract. Tenders by December 11.

ELECTRICAL

Alnwick, Northumb.—Electrical installation in Cemetery Cottage, for U.D.C. Documents from G. Beatty, town surveyor, The Council House, Wagonway Road, Alnwick.

Antrim.—(a) Electrical installations; and (b) heating and plumbing installations, at Buick Memorial Primary School, Cullybackey, for C.C. Documents from J. Waring, consulting engineer, 31 High Street, Carrickfergus. Deposit £5 each contract. Tenders by December 15.

Bristol.—Installation of traffic signals at East Street, for City Council. Tenders by December 12.

Durham.—(a) Electrical installation; (b) heating installation in Bishop Auckland Ambulance Station, for C.C. Applications to County Architect, South Street, Durham, by December 6.

Ealing, Middx.—Renewal electrical installations at Selborne Primary and Secondary School, for B.C. Deposit £1. Tenders by December 27.

Hastings, Sussex.—Electrical installation in new grammar school, Parkstone Road, for B.C. Submit names to E. O. Baxter, borough surveyor, 37 Wellington Square, Hastings, by 10 a.m., December 4. Deposit £3 3s.

Lancashire.—Rewiring of the electrical installations at the Ashton-under-Lyne, Mossley Road County and Girls' County Secondary Schools, for C.C. Applications to the County Architect, P.O. Box 26, County Hall, Preston, by December 4.

Manchester.—Electrical installation to Miles Platting Secondary School, for City Council. Tenders by December 20.

Pomeroy, Tyrone.—Installation of Selex Encl Heat/light in All Saints' Church, Townland of Crossdennott, Donaghmore. Documents from Rev. P. T. Reilly, The Rectory, Pomeroy, Dungannon, Co. Tyrone. Deposit £5. Tenders by December 9.

Potters Bar, Middx.—Electrical rewiring of 50 houses in Cranborne Road, for U.D.C. Documents from the Engineer and Surveyor, Wyllotts Manor, Darnley Lane, Potters Bar. Deposit £2 2s. Tenders by December 8.

Scotland.—Electrical installation for a P.O.L. storage depot for N.A.T.O. Refer to our issue of November 23, page 472. Tenders by June 5.

FENCING

Croydon, Surrey.—Supply and erection of fencing and railings, as follows for B.C.: Beaulieu Heights—6ft. chain link, 160 lin. ft.; 5ft. close boarded hardwood, 180 lin. ft.; 6ft. w.i. railings, 1,322 lin. ft.; 4ft. bow top railings, 300 lin. ft. Wickham Road Roundabout—6ft. close boarded hardwood, 530 lin. ft. Documents from Borough Engineer, Town Hall, Croydon. Tenders by December 18.

Inverness.—Supply and erection of approximately 650yd. of 6ft. high chain link fencing, and approximately 100yd. of 4ft. 6in. high iron railing at Tomnahurich cemetery, for B.C. Documents from The Burgh Architect, 11 High Street, Inverness. Tenders by December 13.

Nottinghamshire.—Supply and erection of approximately 4,750 lin. yd. of post and rail wooden fencing, West Burton Power Station access roads near Gainsborough, for C.C. Documents from the County Surveyor, Shire Hall, Nottingham. Tenders by December 8.

Twickenham, Middx.—Renewal of chain link fencing and for the supply and erection of chain link fencing on concrete posts at pleasure grounds within the borough, for B.C. Documents from Borough Engineer, Municipal Offices, Twickenham. Deposit £1 ls. Tenders by December 8.

GAS AND WATER SUPPLY

Antrim.—Main water scheme, contract 5, for R.D.C., comprising supplying and laying the following pipes: 6 miles, 9in. diameter a.c. pipe; 5½ miles, 8in. diameter a.c. pipe; 8 miles, 6in. diameter a.c. pipe; 5 miles 4in. diameter a.c. pipe; together with short length of p.v.c. pipes and a 500,000 gallons reinforced concrete reservoir. Documents from the offices of W. D. R. and R. T. Taggart, consulting engineers, 13 College Gardens, Belfast. Deposit £5 5s. Tenders by December 20.

Armagh.—Blackwater town water and sewerage scheme, for R.D.C.: (a) Laying approximately 583 lin. yd. 3in. p.v.c. water main (solution joints), together with all bends, etc., pipes and fittings will be supplied by the Council; (b) supplying and laying approximately 983 lin. yd. 4in. and 6in. earthenware and pitch-fibre sewerage pipe, together with all manholes, etc.; and (c) disposal works. Documents from J. A. Dawson, clerk of the council, Council Offices, Tower Hill, Armagh. Deposit £5. Tenders by December 11.

Castlederg, Tyrone.—Taking delivery of and laying approximately 600 lin. yd. of 2in. p.v.c. class B watermain at Garvetagh Upper, Castlederg, for R.D.C. Documents from Council Offices, Strabane Road, Castlederg. Deposit £2 2s. Tenders by Dec. 7.

Durham.—External and internal cold water and gas service at Seaham New Grammar Technical School, for C.C. Application to County Architect, South Street, Durham, by December 6.

Melford, Suffolk.—Water mains extensions, contract 21, for R.D.C. Deposit £4 4s. Tenders by January 5.

Wiltshire.—Supply of one submersible pumping unit, for the West Wilts Water Board. Tenders by December 18.

Witney, Oxon.—Provision and laying of approximately 475 lin. yd. of 6in. diameter cast iron water mains and fittings at Welch Way, for U.D.C. Documents from the Engineer and Surveyor, at 26 Church Green, Witney. Tenders by December 11.

HARBOURS, PIERS AND SEA DEFENCE WORKS

Aberdeen.—Construction of 5,000ft. of new sea wall, 2,400ft. of improvements to the existing sea wall, and 22 timber groynes, approximately 300ft. in length, at Aberdeen, for City Council. Applications, in writing, and including details of location, scope and extent of experience in marine works, together with names and addresses of referees, to City Engineer, 3 King Street, Aberdeen by December 7.

Chislehurst, Sussex.—Construction of sea defence works, 925ft. in length, at Saltdean, for R.D.C., comprising an 18ft. high mass concrete sea wall faced with precast concrete blocks, a reinforced concrete promenade, three mass concrete groynes, cliff trimming, and other ancillary works. Documents from D. J. Howe, borough engineer of the County Borough of Brighton, 26/30 King's Road, Brighton. Deposit £3 3s. Tenders by January 13.

HEATING AND VENTILATING

Down.—Plumbing, heating and electrical installations in the central meals kitchen at Dromara, for C.C. Documents from J. R. W. Murland consulting engineer, 25 Bedford Street, Belfast. Deposit £3 each set. Tenders by December 6.

Rochdale, Lancs.—Conversion of the existing coke-fired boiler to oil firing at police headquarters, Alfred Street, for B.C. Particulars from Borough Surveyor, Town Hall, Rochdale. Tenders by December 18.

Worthing, Sussex.—Provision of hot water systems, new baths, etc., in 12 pre-war Council houses in Ferring, for R.D.C. Documents from the Housing Manager, 15 Mill Road, Worthing. Deposit £1 ls. Tenders by December 21.

HOUSING SCHEMES

Aberdeen.—Six houses at Manor Drive/Logie Place, for City Council—excavator, concrete and brick; carpenter and joiner; roof tiler and roughcast; plumber; lath and plaster; electrical; glazier and supply and installation of fireplaces. Application, in writing, to the City Architect, 11 Broad Street, Aberdeen. Tenders by December 8.

Antrim.—Fifty houses at Connor, together with roads, paths, drainage and other ancillary works, for R.D.C. Documents from the offices of McCarthy and Lilburn, quantity surveyors, 43 Scottish Provident Buildings, Belfast, 1, or The Council Offices, The Steeple, Antrim. Deposit £5 5s. Tenders by December 20.

Arbroath, Angus.—Housing development at Newbigging site, first development, for B.C. Contract 1 (57 houses): Two five-storey blocks of flats and maisonnettes, 20 houses; two three-storey blocks of flats and maisonnettes, 16 houses; seven two-storey blocks of terraced houses, 21 houses. Contract 2 (54 houses): Five three-storey blocks of flats and maisonnettes, 32 houses; six two-storey blocks of terraced houses, 22 houses. Town Council are prepared to receive tenders for the erection of the houses as a single contract or as two separate contracts. Applications to W. R. Samson, burgh architect, 32 Hill Street, Arbroath, by December 2. Deposit £5 5s.

Ashford, Kent.—One hundred and twenty-one dwellings at Beaver Green, in two stages, for U.D.C. The work comprises houses, bungalows, two- and three-storey flats in brick construction, together with garages, site works and services. The Bills of Quantities and other contract documents will be made available as follows: Stage VI, 57 dwellings—end of December 1961; stage VII, 64 dwellings—end of January, 1962. Contractors interested in submitting tenders should notify the Surveyor, 1 Elwick Road, Ashford, by December 11. A deposit of £5 5s. will be required for each stage.

Barnsley, Yorks.—Erection of a detached single-storey house at the Barnsley Corporation Waterworks Department, Scout Dyke, near Penistone, for B.C. Documents from the Borough Engineer, Town Hall, Barnsley, on or after December 1. Deposit £2 2s. Tenders by December 29.

Bedford.—Three bungalows, Cornlands, and two semi-detached houses at Mill Farm, Bedford, to be let in separate contracts. Applications to F. W. Dawkes, borough engineer and surveyor, Newnham House, Horne Lane, Bedford, by Dec. 8. Deposit £2 2s. each contract.

Beverley, Yorks.—Seven pairs of semi-detached houses at Welton, contract 492, for R.D.C. Documents from G. Palfreyman, architect and surveyor, 22 Laigate, Beverley. Deposit £1. cheque payable to Council. Tenders by December 19.

Birkenhead, Ches.—Seventy dwellings at Thingwall Hall estate, contract 2, for B.C. Documents from Borough Architect, 3 Conway Street, Birkenhead. Deposit £2 2s. Tenders by December 18.

Blackburn, Lancs.—Blocks of two flats at Witton Park School, for B.C. Apply to the Borough Engineer, Town Hall, Blackburn, by December 6. Deposit £2 2s.

Bootle, Lancs.—(a) Roof tiling; (b) plastering; (c) asphaltting; (d) steel and iron work; (e) electric installation; (f) thermoplastic floor tiling to 94 dwellings at Strand Road, scheme 43, for B.C. Documents from Borough Surveyor, Town Hall, Bootle, 20, Lancs.

Burntwood, Staffs.—Two bungalows, one at each of the Burntwood and Chase Terrace parks, for Parish Council. Documents from F. H. Attenborough, clerk to the Burntwood Parish Council, 5 Walmer Meadow, Aldridge, Walsall. Tenders by Dec. 30.

Chesterton, Cambs.—Fourteen dwellings in the Parish of Fen Drayton, for R.D.C. Documents from Architect, County Hall, Hobson Street, Cambridge. Deposit £2 2s. cheques payable to Council. Tenders by December 11.

Chigwell, Essex.—One four-storey block of 16 flats, one block containing four shops and four flats, and one three-storey block of one-bedroom flats, together with usual ancillary works, about May 1962, for U.D.C. From applications a list will be selected. Bills of Quantities provided. Applications to Topley and Foster, architects, Midland Bank Chambers, Buckhurst Hill, by December 8. Unless similar contracts have been carried out recently for the Council or their architects, names of two architects for whom similar jobs have been executed and to whom reference may be made must be quoted.

Chislehurst and Sidcup, Kent.—Design and construction of R.C. floors and staircases at:

Gattons housing development site, North City Road (320 super. yd.), for U.D.C. Applications, in writing, to the Engineer and Surveyor, Manor House, Sidcup, by December 1.

Christchurch, Hants.—Forty flats in three separate fixed price contracts, as follows: Contract 1—20, contract 2—12, contract 3—eight, for B.C. Contractors may price for one or more contracts. Documents from Geo. Cross and Sims, architects, Metropole Chambers, The Lansdowne, Bournemouth. Deposit £2 2s., payable to Council. Tenders by Dec. 18.

Colchester, Essex.—Fifty-seven units of accommodation, comprising 18 flats in three storeys, 29 bungalows, 10 houses, at Grinstead, site for B.C. Documents from Vintner Hall, borough architect, Borough Architect's Department, 64 West Stockwell Street, Colchester. Deposit £6 6s. Tenders by December 18.

Doncaster, Yorks.—Forty brick built houses at Cusworth Lane, Sprotborough, and appurtenant works, contract 392, for R.D.C. Documents from J. A. Williams, surveyor to the council, Nether Hall, Doncaster. Deposit £5 5s. Tenders by December 15.

Doncaster, Yorks.—Twenty-five brick built dwellings at Cusworth Lane, Sprotborough, and appurtenant works, contract 393, for R.D.C. Documents from J. A. Williams, surveyor to the council, Nether Hall, Doncaster. Deposit £5 5s. Tenders by December 15.

Doncaster, Yorks.—Twelve brick built dwellings at Cusworth Lane, Sprotborough, and appurtenant works, contract 394, for R.D.C. Documents from J. A. Williams, surveyor to the council, Nether Hall, Doncaster. Deposit £5 5s. Tenders by December 15.

Doncaster, Yorks.—Eight brick built dwellings at Charles Crescent, Armthorpe, and appurtenant works, contract 395, for R.D.C. Documents from J. A. Williams, surveyor to the council, Nether Hall, Doncaster. Deposit £5 5s. Tenders by December 15.

Doncaster, Yorks.—Fifteen brick built dwellings at Edlington, and appurtenant works, contract 396, for R.D.C. Documents from J. A. Williams, surveyor to the council, Nether Hall, Doncaster. Deposit £5 5s. Tenders by December 15.

Hawick, Roxburghs.—One block of 12 houses on a site in the Oliver Park Scheme, for B.C. Documents from the Burgh Surveyor, Hawick. Plans also seen at the office of Aitken and Turnbull, Architects, 22 Buccleuch Street, Hawick. Tenders by December 13.

Mansfield, Notts.—Twenty-nine bungalows and meeting room at Debdale housing estate, contract 24/c, for B.C. Deposit £2 2s. Tenders by December 14.

Midlothian.—Seven houses (in traditional construction) and three lock-up garages at Pathhead, for C.C. Apply to the County Architect, 32 Palmerston Place, Edinburgh, by 10 a.m., December 4.

Newcastle-under-Lyme, Staffs.—Twenty-five dwellings for aged persons' and a recreation room, plus roads and sewer work, at Werton. Audley, for R.D.C. Documents from F. W. Ramm, Clerk of the Council, Council Offices, Sidmouth Avenue, The Brampton, Newcastle. Staffs. Deposit £3 3s. Tenders by Dec. 18.

Peterborough.—Five three-storey blocks comprising 44 flats and 16 maisonnettes, Paston Ridings, for City Council. Documents from City Engineer, Town Hall, Peterborough. Deposit £2. Tenders by December 20.

Renfrewshire.—Twelve one-apartment, eight two-apartment, 36 three-apartment and four four-apartment dwelling houses at Eaglesham, for C.C.: (1) Excavator, brick and concrete works; (2) carpenter, joiner and glazier works; (3) slater and roughcast works; (4) plumber work; (5) plaster work; (6) electrical work; (7) painter work. Contractors should submit names and the type of work or works for which they are prepared to submit an offer to the County Engineer, 16 Back Sneddon Street, Paisley, by December 6.

Salford, Lancs.—Sixteen-storey block of 120 flats, etc., at New Church site, for City Council. Deposit £5 5s. Tenders by January 1.

Scarborough, Yorks.—Twenty-seven houses, Eastway, Eastfield, for B.C. Documents from V. Forshaw, Borough Engineer and Surveyor, Town Hall, Scarborough. Deposit £2 2s. Tenders by Dec. 7.

Sowerby Bridge, Yorks.—Replacement of 11 temporary bungalows by permanent bungalows at Lower Bentley Road, to be carried out in phases of four bungalows per phase, for U.D.C. Each four bungalows to be completed before the next four are commenced. Documents from the Engineer and Surveyor, Beech Road, Beech Road, Sowerby Bridge. Deposit £2 2s. Tenders by December 18.

Wisbech, I. of E.—Following for R.C. Contract 230, 10 houses, Waterlees Road estate, stage 1; house, garage and rent office, Norwich Road. Documents from the Borough Engineer, Church Terrace, Wisbech. Deposit £2 2s. Tenders by Dec. 20.

Worsley Lanes.—One block of two-storied flats, comprising eight dwellings, on the Angley Avenue site, Little Hulton, Walkden, for U.D.C. Documents from L. T. Broome, engineer and surveyor, Town Hall, Walkden, Manchester. Deposit £2 2s. Tenders by Dec. 7.

MATERIALS AND SUPPLIES

Aberdare, Glam.—Supply of round dustbins, for U.D.C. Details from the Engineer and Surveyor, Vestry Hall, Aberdare. Tenders by Dec. 15.

Bermundsey.—Supply of materials for B.C. Refer to our issue of Nov. 23, page 473. Tenders by Jan. 15.

Blackpool, Lancs.—Following for Fylde Water Board: (a) Sulphate of alumina; (b) hydrate of lime; (c) asbestos-cement pipes and fittings; (d) cement. Particulars from the Engineer, Fylde Water Board, Sefton Street, Blackpool. Tenders by December 11.

Bridgewater, Som.—Supply of materials, for B.C. Tenders by January 22.

Bristol.—Supplies for twelve months commencing January 1, 1962, for City Council. Glass for glazing. Documents from Housing Department, Council House, Bristol 1. Tenders by December 18.

Conwall.—Supply of materials for C.C. Refer to our issue of Nov. 23, page 474. Applications by Dec. 11.

Coulsdon and Purley, Surrey.—Supply of following materials during year commencing April 1, 1962, for U.D.C.: Asphalt, tarmacadam, petrol and fuel oils. Documents from Engineer and Surveyor, to Council, Council Offices, Purley. Addressed foolscap envelope must accompany application. Tenders by December 11.

Devon.—Supply of materials for C.C. Refer to our issue of Nov. 23, page 473. Tenders by Jan. 5.

Dublin, Eire.—Supply to Central Engineering Workshops, Inchicore: (1) Tungsten carbide tipped drill steels; (2) steel wire rope, for the Office of Public Works. Documents from the Secretary, Office of Public Works, 51 St. Stephen's Green, Dublin 2. Tenders by December 14.

Dublin, Eire.—Supply of timber to various drainage works for the Office of Public Works. Documents from the Secretary, Office of Public Works, 51 St. Stephen's Green, Dublin 2. Tenders by December 7.

Durham.—Supply of lathes, for C.C. Tenders by December 15.

East Suffolk.—Supply of road materials, for C.C. Tenders by December 30.

Felling, Dur.—Supply of various materials for housing, for U.D.C. Tenders by December 6.

Flintshire.—Supply of materials, for C.C. Tenders by January 15.

Harrow, Middx.—Supply of materials, for B.C. Tenders by January 2.

Lambeth.—Supply of materials, for B.C. Tenders by January 3.

Lancashire.—Supply of industrial hydraulics equipment comprising water turbines, pumping set, and connecting pipework, for Lancaster and Morecambe College of Further Education, for C.C. Application to the County Architect, P.O. Box 26, County Hall, Preston, by December 4.

Lindsey.—Supply of materials for 12 month commencing April 1, for C.C. Tenders by January 8.

Merioneth.—Supply of materials, for C.C. Tenders by December 11.

Monmouthshire.—Supply of materials, for C.C. Tenders by January 1.

Norfolk.—Supply to site at Martham, Norfolk, of approximately 8,960 cu. ft. of home-grown oak, for the East Suffolk and Norfolk River Board. Documents from the Chief Engineer, The Cedars, Albemarle Road, Norwich. Tenders by December 11.

Rochdale, Lancs.—Fuel oil supplies for all Corporation departments, for B.C. Documents from the Borough Surveyor, Town Hall, Rochdale. Tenders by December 18.

Romford, Essex.—Supply of materials, tools, etc., for B.C. Refer to our issue of Nov. 23, page 474. Tenders by Dec. 30.

Ruislip-Northwood, Middx.—Annual contracts, 1962/63, for U.D.C. Tenders by January 9.

Sevenoaks, Kent.—Supply of materials, for U.D.C. Tenders by January 8.

Slaithburn, Yorks.—Supply of sludge freezing plant, hoder works, for the Fylde Water Board. Tenders by December 13.

Swindon, Wilts.—Supply of materials and hire of plant for B.C. Refer to our issue of Nov. 23, page 474. Tenders by Dec. 6.

Walthamstow, Essex.—Supply of materials for year ending March 1963, for B.C. Tenders by December 29.

Wanstead and Woodford, Essex.—Supply of materials, for B.C. Tenders by January 5.

Watford, Herts.—Supply of sluice valves during the year ending March 31, 1963, for B.C. Documents from J. R. Collins, borough

water engineer and manager, Town Hall, Watford. Tenders by January 2.

Wiltshire.—Supply of road materials for 12 months from April 1, for C.C. Tenders by December 29.

MISCELLANEOUS

Durham.—Maintenance and servicing of refrigerators, etc., for C.C. Tenders by December 15.

Northampton.—Supply and erection of tentage and tabling on a three-year basis at the 1962, 1963 and 1964 Northampton shows in Abington Park, on August Bank Holiday Monday and Tuesday, for B.C. Apply for further particulars to C. E. Vivian Rowe, town clerk, Guildhall, Northampton. Tenders by Dec. 5.

PLANT AND MECHANICAL TRANSPORT

Castelford, Yorks.—Supply of following, for B.C.: One 18.25 cu. yd. double cab Dennis Paxit mark III automatic continuous loading compression refuse collector, diesel powered; one 14 cu. yd. single cab S. and D. freighter T.W. 14 S type, fore and aft, tipping refuse collector, fitted with power press and hygienic shutters, diesel powered. Specifications of additional fittings from the Transport Maintenance Officer, Wheldon Road, Castelford. Delivery date to be stated. Tenders endorsed "Refuse Collector" enclosed in a plain sealed envelope, to Ernest Hutchinson, town clerk, Town Hall, Castelford, by 9.30 a.m. December 7.

Galway, Eire.—Supply to the Council's Machinery Yard at Galway of following, for C.C.: (a) Two diesel dumpers 4½ cu. yd.; (b) one diesel rubber tyre loader, 1½ cu. yd.; (c) one stationary electrically driven air compressor, approximately 300 c.f.m. Outline specification from the Secretary, Galway County Council, County Buildings, Galway. Tenders by December 11.

Hemel Hempstead, Herts.—Supply of two automatic loading compression refuse collection vehicles, for B.C. Documents from A. H. Turner, borough engineer, High Street, Hemel Hempstead. Tenders by December 18.

Irthlingborough, Northants.—Supply of a 7cwt. Ford Thames van, for U.D.C. Details of extras, colour, etc., on application to A. Dewhurst, Council Offices, Irthlingborough. The Council do not bind themselves to accept the lowest or any tender. Tenders, in plain sealed envelopes endorsed "Supply of Vehicle," addressed to O. C. Palmer, clerk of the Council, Council Offices, Irthlingborough, by December 8.

Llanfyllin, Monts.—Following for R.D.C. Supply of a motor lorry and the taking in part exchange of a 30cwt. Thames Truck which may be seen by appointment with the Council's Surveyor, Council Offices. The vehicle to be supplied must be capable of carrying three-ton loads, be fitted with a tipper and powered by a diesel engine. Each tender must include a full description of the vehicle to be supplied and state the period within which it can be delivered. Tenders, in plain sealed envelopes endorsed "Motor Lorry," to the Clerk of the Council, Council Offices, Llanfyllin, by December 13.

Manchester.—Supply of rear loading refuse collection vehicles maximum overall width 6ft. 8in., gravity packing type bodies, 12 cu. yd. air space capacity, for City Council. Official form from the Director of Public Cleansing, Town Hall, Manchester, 2. Tenders by December 8.

Northamptonshire.—Supply of one long wheelbase Land-Rover emergency/salvage tender, for C.C. Specification from the Chief Fire Officer, Fire Brigade Headquarters, 28 Headlands, Kettering. Tenders by December 20.

Wallasey, Lancs.—Supply of 30 1½ cu. yd. capacity bulk refuse containers, for B.C. Documents from the Borough Engineer and Surveyor, Town Hall, Wallasey. Tenders by December 11.

PLAYING FIELDS, PARKS, ETC.

Darlston, Staffs.—Construction of two football pitches on Bentley estate, for U.D.C. Documents from the Engineer and Surveyor, Victoria Park, Darlston. Deposit £2 2s. Tenders by Jan. 8.

Middlesex.—Horticultural (gardening) works on the verges, central reservations and roundabouts on trunk and county roads in Middx. during the year commencing April 1, 1962, for C.C. Documents from the County Engineer and Surveyor, Middlesex House, 20 Vauxhall Bridge Road, Westminster, S.W.1. Tenders by Dec. 31.

Twickenham, Middx.—Conversion of two existing tennis courts to non-attention courts, including underdrainage and chain link surround, at Kneller Gardens, and resurfacing of two non-attention courts at Murray Park, for B.C. Documents from the Borough

Engineer, Municipal Offices, Twickenham. Deposit £1 1s. Tenders by Dec. 8.

West Riding.—Following, for C.C.: (1) Provision of additional playground area and coke pound at Warmworth J.M.I. School; (2) provision of additional playing area at Adwick-le-Street Washington J.M.I. School. Documents from the Divisional Architect, Planet Road, Adwick-le-Street, Doncaster. Tenders by January 9.

ROADS, BRIDGES AND SITE WORKS

Aberdeen.—Site clearance and levelling of the Gallowgate area (Seamount Place) in preparation for redevelopment, for City Council. Applications in writing to the City Architect, 11 Broad Street, Aberdeen. Tenders by Dec. 8.

Aldrincham, Ches.—Making up of Irwin Road, for B.C. Deposit £2 2s. Tenders by December 18.

Antrim.—Widening of Dunmurry Bridge (proposal 6), for C.C. The contract entails the construction of new abutments with prestressed concrete deck. Documents from County Surveyor's Office, County Courthouse, Crumlin Road, Belfast. Deposit £5 5s. Tenders by Dec. 5.

Ashford, Kent.—Following for U.D.C.: Chart Road improvement—realignment of carriageway, involving approximately 4,500 cu. yd. excavation, 2,500 sq. yd. lean mix concrete 10in. thickness, 4,000 sq. yd. tarmacadam base course, 5,500 sq. yd. cold asphalt, etc. Canterbury Road improvement—widening of carriageway, involving approximately 3,000 cu. yd. excavation, 500 sq. yd. 9in. thickness brick retaining wall, etc. Documents from the Surveyor, 1 Elwick Road, Ashford. Tenders by Dec. 18.

Banstead, Surrey.—Improvement of Reigate Road, A.240, from Great Tattenhams to Claremount Gardens, for U.D.C. Deposit £3. Tenders by December 15.

Batley, Yorks.—Construction of Bank Foot Street (45 lin. yd. approximately) and Sunny Bank Road (150 lin. yd. approximately), for B.C., including excavating, sewerage, levelling, paving, tarmacadam surfacing, flagging, kerbing, etc., and making good the above roads. Documents from the Borough Engineer, Hanover Street, Batley. Tenders by Dec. 11.

Belfast.—Resurfacing and repairs in macadam of various school playgrounds for City Council. Documents from the City Architect's Department, 40 Academy Street, Belfast, 1. Tenders by Dec. 14.

Bromsgrove, Worcs.—Children's playgrounds, Broad Street recreation ground for U.D.C. approximate quantities as follows: 1,800 sq. yd. macadam surfacing together with drainage, fencing and erection of playground equipment and all ancillary works. Documents from Engineer and Surveyor, Council House, Bromsgrove. Deposit £2 2s. Tenders by Dec. 22.

Cambridgeshire.—Supplying and laying by machine approximately 4,700 tons of base-course and 1,100 tons of wearing course asphalt on A.11, east of Newmarket, and approximately 3,800 tons of base-course and 1,380 tons of wearing course asphalt on A.10, between Foxton and Harston, contract 6118, for C.C. Documents from R. Lacey, county surveyor, Shire Hall, Castle Hill, Cambridge. Tenders by December 11.

Cardiganshire.—Improvement to Fishguard-Bangor trunk road, A.487—Llanrhystyd Bridge, for Ministry of Transport. Following works to be comprised in one contract: (1) Demolition of an existing stone arch bridge; (2) construction of a new bridge of prestressed in-situ slab construction, employing the Freyssinet system of cables and anchorages; (3) construction of abutments, river walls, approach roads, and all ancillary works. Documents and drawings available for inspection, by appointment, at the offices of Wallace Evans and Partners, consulting engineers, 30 Stanwell Road, Penarth, Glam., or at the offices of the County Engineer and Surveyor, County Hall, Aberystwyth, Cardiganshire. Documents from the Consulting Engineers. Deposit £10, cheque payable to the Minister of Transport. Tenders by December 21.

Chadderton, Lancs.—Private street works—Fernlea Avenue etc., for U.D.C. Deposit £2 2s. Tenders by December 18.

Coventry.—Access road and car park, The Butts, for City Council, comprising the construction of 5,100 sq. yd. of 2in. tarmacadam and 6in. hardcore car park, 1,380 sq. yd. 3in. dense tar and 8in. lean-mix road, together with other paving, drainage works. Documents from the City Engineer, Council House, Coventry. Deposit £5. Tenders by December 11.

Cowdenbeath, Fife.—Slab paving of garden paths in housing schemes, for B.C. Documents from H. Gardiner, borough surveyor, Town House, Cowdenbeath, by December 9.

Cumberland.—Road and bridge improvement scheme at Northside, Workington, for C.C. Deposit £5. Tenders by December 22.

***Darlington, Dur.**—Final road works, Fifth Moor housing estate, for B.C. Deposit £2 2s. Tenders by December 12.

Derby.—Construction of the following approximate lengths of roads and sewers:—117 lin. yd. of 16ft. wide street, 93 lin. yd. of garage access road, 31 lin. yd. of 6in. diameter sewer, together with various ancillary works at Perth Street cul-de-sac and garage access road, approximately one mile from the centre of Derby in the Chaddesden area, for B.C. Documents from the Borough Engineer and Surveyor, The Council House, Derby. Deposit £5 5s. Tenders by Dec. 21.

Dunbartonshire.—Construction of temporary bridge at Inverbeg, on the trunk road route A.82, London-Carlisle-Glasgow-Inverness road, for C.C. Work includes excavation, concrete abutments and wingwalls, universal beams, reinforced concrete bridge deck, and ancillary road works, Clear span of bridge, 50ft. Width between parapet railings, 30ft. Applications to Mr. James R. Aitken, County Surveyor, 88 College Street, Dunbarton, by December 4. Deposit £20, bank deposit receipt payable to Council.

***Farnworth, Lancs.**—Kerbing and flagging works, George Street and Laburnum Road, for B.C. Tenders by December 15.

***Gosport, Hants.**—Making up private streets, Contract No. 4, for B.C. Deposit £2 2s. Tenders by December 28.

***Harrow, Middx.**—Roadworks at junction of Pinner Road/Woodlands, for B.C. Deposit £2. Tenders by December 12.

***Lancashire.**—Widening of Yarrow Bridge, for C.C. Deposit £5. Tenders by January 8.

***Lindsey.**—Improvement of the approaches to the Keadby Trent Bridge, near Scunthorpe, for C.C. Deposit £5 5s. Tenders by December 20.

***Lindsey.**—Site clearance etc., Horncastle Louth Road, A.153—Scamblesby diversion, for C.C. Tenders by December 18.

Llanelli, Carm.—Making up of Caswell Street, Stewart Street and Trinity Terrace, for B.C., comprising approximate quantities: 1,000 cu. yd. excavation; 700 tons native stone road foundation; 5,000 sq. yd. bituminous macadam surfacing; 800 sq. yd. pre-cast concrete paving; 900 sq. yd. cold asphalt paving; 1,000 lin. yd. kerbing; plus appurtenant works. Documents from Borough Engineer, Town Hall, Llanelli. Deposit £2 2s. Tenders by December 18.

***Luton, Beds.**—Improvement of New Bedford Road, for B.C. Deposit £2 2s. Tenders by January 5.

***Malden and Coombe, Surrey.**—Re-laying paving, for B.C.

***Mansfield, Notts.**—Making up three roads, for B.C. Deposit £2 2s. each contract. Tenders by January 1.

Mexborough, Yorks.—Making up of part of Carlyle Street and Milton Road, for U.D.C., comprising approximately 225 lin. yd. of concrete flagged footpath only. Documents from the Surveyor's Department, Council Offices, Adwick Road, Mexborough. Deposit £2 2s. Tenders by December 15.

Morley, Yorks.—Private street works, comprising drainage, kerbing, channelling, pitching and surfacing of carriageways and footpaths in the following, for B.C.: (1) Ashwood Drive (part) Gildersome; (2) Ashwood Grove, Gildersome; (3) Greenfield Avenue, Gildersome; (4) Scatcherd Lane (part) footpath only. Documents from the Borough Engineer's Office, Town Hall, Morley. Deposit £2 2s. Tenders by December 11.

Mynyddislwyn, Mon.—Road completion works—Fleur-de-lys Avenue and Edgell, Penllwyn, Pontllanfraith, for U.D.C., comprising approximately 3,500 sq. yd. of tarmacadam to carriageways, approximately 1,500 sq. yd. of tarmacadam to footpaths, and approximately 880 lin. yd. concrete kerbing. Documents from the Engineer and Surveyor, Council Offices, Pontllanfraith, Blackwood, Mon. Deposit £2 2s. Tenders by December 12.

***Neston, Ches.**—Making up part of Bendec Avenue, for U.D.C. Tenders by December 15.

Newcastle upon Tyne.—Following for City Council: (a) Pottery Bank estate, multi-storey flats site, roadworks. Construction and maintenance of approximately 400 sq. yd. 6in. reinforced concrete carriageway, 600 sq. yd. precast concrete flagged footways, and ancillary works; (b) Longbottom housing estate, unit 4, garage sites, access roads and aprons, construction and maintenance of approximately 3,000 sq. yd. 6in reinforced concrete carriageway to nine garage sites, and ancillary works. Documents from the City Engineer, Town Hall, Newcastle upon Tyne. Tenders by Dec. 21.

Northallerton, Yorks.—Roadworks, sewers and water mains in connection with the development of the Stokesley Road estate, comprising of approximately 2,300 sq. yd. of reinforced concrete roadway, 500yd. 6in. water main and 500yd. of sewers, for U.D.C. Documents from P. Hartley, clerk of the Council,

72 High Street, Northallerton. Tenders by December 16.

***Northfleet, Kent.**—Roads and sewers, for U.D.C. Deposit £2 2s. Tenders by December 20.

Northumberland.—Construction of car park on Military Road at Housesteads Roman Station, Haltwhistle R.D., for C.C., comprising an asphalted area of approximately 1-acre, together with associated dry stone walling, curbing and drainage. Documents from the County Planning Officer, Floor 11, County Hall, Newcastle upon Tyne. Tenders by Dec. 7.

***Northwich, Ches.**—Reconstruction of Chester Way (Timber Lane to Meadow Street), for U.D.C. Tenders by December 11.

***Padiham, Lancs.**—Construction of Cowley Street, for U.D.C. Deposit £1 1s. Tenders by December 20.

Richmond, Surrey.—Petersham Road improvements for B.C. Comprising the widening and reconstruction of about 1,890 sq. yd. of carriageway by the New Inn, in reinforced concrete slab topped with hot rolled asphalt; about 1,000 sq. yd. of footway; 350 lin. yd. of granite kerb, brick boundary walls, gullies and white lines. Also the re-laying of about 190 lin. yd. of surface water sewer in 12in. and 15in. dia pipes, and all other ancillary works; the construction of a bus bay near Hazel Lane in reinforced concrete (about 170 sq. yd.); the widening of existing carriageway (about 240 sq. yd.) in hardcore and hot rolled asphalt; about 350 sq. yd. of footway; 170 lin. yd. of 6ft. close boarded fence, including the removal of trees, and other ancillary works. Documents from the Borough Engineer and Surveyor, King's Road, Richmond, Surrey. Tenders by Dec. 29.

***Runcorn, Ches.**—Construction of Picow Farm Road (part), for U.D.C. Tenders by December 18.

***Southampton.**—Preliminary site works etc., at Dimond Road, Pitterne Park, for B.C. Applications to Borough Architect, by December 7. Tenders by January 2.

***Stoke-on-Trent, Staffs.**—Making up Levita Road and Fremantle Road, for City Council. Deposit £2. Tenders by December 6.

***Sunbury-on-Thames, Middx.**—Tudor Road extension, Ashford Common, for U.D.C. Tenders by December 31.

***Sunderland, Dur.**—Footpaths at Thorney Close estate, for B.C. Deposit £2 2s. Tenders by December 19.

Surrey.—Widening the service road on the Kingston By-pass road (A.3), between The Broadway and Cranborne Avenue, Tolworth (Hook Rise North), in lean-mix sub-base with asphalt surfacing for a length of approximately 800 lin. yd., together with ancillary works, for C.C. Documents from County Engineer, County Hall, Kingston-upon-Thames. Tenders by Dec. 16.

***Weston-super-Mare, Som.**—Winterstoke Road improvement, for B.C. Deposit £2 2s. Tenders by December 18.

***Wirral, Ches.**—Acre Lane improvement, for U.D.C. Tenders by December 8.

Wisbech, I. of E.—Main surface water scheme, Norwich Road; together with roads and sewers for Sefton Avenue and Tinker's Drove housing estates, for B.C. Works comprise the laying of approximately 1,200 lin. yd., of flexible jointed concrete pipes of various diameters from 9in. to 18in., 200 lin. yd. of 6in. dia. salt glazed ware pipes, together with manholes and other ancillary works; also approximately 1,700 sq. yd. of lean concrete carriageway, 650 lin. yd. of kerbs and channels, and six brick-built soakaways. Documents from the Borough Engineer and Surveyor, Church Terrace, Wisbech. Deposit £2 2s. Tenders by Dec. 20.

SEWERAGE, SEWAGE AND REFUSE DISPOSAL

Banstead, Surrey.—Surface water drainage works which will be carried out in a number of roads within the district, for U.D.C. The works comprise the construction of soakaways and various ancillary works. Documents from the Engineer and Surveyor, The Council House, Brighton Road, Banstead. Deposit £2. Tenders by Dec. 5.

Bournemouth, Hants.—Supply of approximately 1,020 lin. yd. of 66in. diameter; 1,030 lin. yd. of 57in. diameter, and 1,420 lin. yd. of 30in. diameter factory designed concrete sewer pipes, to withstand specified loadings, for B.C. Details from Borough Engineer, Town Hall, Bournemouth. Tenders by December 14.

***Bullington, Oxon.**—Dorchester-on-Thames sewage disposal scheme, for R.D.C. Tenders by December 15.

Chelmsford, Essex.—Construction of approximately 1,000 lin. yd. of surface water sewer, together with the necessary brick manholes, and ancillary works, including the construction of river outfalls at First Avenue, Sixth Avenue, Tower Gardens and Admirals Park, for B.C. The sewers will be constructed of Ogee jointed concrete pipes and will

vary in size from 36in. to 12in. diameter. Documents from the Borough Engineer and Surveyor, Coval Lane, Chelmsford. Deposit £2 2s. Tenders by December 4.

Derwent, Yorks.—Elvington sewerage and sewage disposal, for R.D.C., comprising the laying of approximately 1,350yd. of 6in. and 9in. sewers with manholes and house connections, the construction of a pumping station and the laying of approximately 1,100yd. of 4in. and 6in. diameter a.c. pumping main. Documents from Fairbank and Son, consulting engineers, 29 St. Mary's, Bootham, York. Deposit £3 3s., cheque payable to Council. Tenders by Dec. 19.

***Driffield, Yorks.**—Sewerage and sewage disposal scheme, for parish of Wetwang, for R.D.C. Deposit £5 5s. Tenders by January 10.

Forehoe and Henstead, Norfolk.—Green Croft, Surlingham sewerage and sewage disposal scheme for R.D.C., which comprises the laying of approximately 770yd. of 6in. glazed stoneware pipe sewers, together with 11 manholes and appurtenant works, and the construction of a small sewerage disposal works. Documents from W. A. Jones, engineer and surveyor, Ber House, 158 Ber Street, Norwich. Deposit £1 1s. Tenders by Dec. 7.

Helston, Corn.—Following for B.C.: (i) Repairs to the drainage system of seven houses in Porthleven; (2) plumbing works in the installation of hot water systems and bathroom fittings to 12 houses in Helston. Documents from the Borough Surveyor, The Guildhall, Helston. Tenders by December 13.

Hireathog, Denbighs.—Following for R.D.C.: Contract 1: Capel Iarmon Village, comprising of one circular filter, 19ft. 6in. diameter, sludge beds, humus tank and other incidental works; contract 2: Mountain View, Capel Iarmon, construction of septic tank and filter and laying approximately 145yd. 6in. diameter sewer and other incidental works. Documents from John Roberts, clerk of the Council, Council Offices, Avondale, Llanrwst. Deposit £2 2s. Tenders by December 19.

Keynsham, Som.—Provision and installation of two sewage pumps each rated 180 gallons per minute, and two electric motors, together with associated equipment, for the conversion of an existing sewerage ejector station into a pumping station, at Norman Road housing estate, Saltford, for U.D.C. The works also include the removal of the existing two ejectors, each rated at 25 gallons per minute, together with the existing electric motors and air compressors, and other associated equipment, and offers are invited for the purchase of this equipment. Documents from the Engineer and Surveyor, Council Offices, Keynsham, Bristol. Deposit £2 2s. Tenders by Dec. 13.

Lancaster, Lancs.—Sewerage scheme, 1961, for City Council. Contract 1—Parkfield Drive to Stodday. This includes the construction of 3,000 lin. yd. of 30in. to 42in. dia. concrete pipe sewers and 1,300 lin. yd. of 12in. to 24in. concrete pipe sewers, together with manholes and other ancillary works. The contract also entails laying a 36in. dia. concrete pipe sewer across a canal, including provision of cofferdams. Contract 2—Barton Road and Durham Avenue. This includes the construction of 550 lin. yd. of 12in. and 15in. concrete pipe sewers, together with manholes and ancillary works. Documents from the City Engineer, Town Hall, Lancaster. Deposit £2, per contract. Tenders by Dec. 18.

Morley, Yorks.—Construction of approximately 30yd. of 36in. diameter pipe culvert in Denshaw Beck, Dewsbury Road, Tingley, for B.C. Documents from the Borough Engineer's Office, Town Hall, Morley. Deposit £2 2s. Tenders by December 12.

Omagh, Tyrone.—Construction of a sewerage and sewage disposal works at Seskinore, for R.D.C. Documents from the Rural District Council, Omagh. Deposit £3 3s. Tenders by December 20.

***Penrith, Cumb.**—Armthwaite sewerage and sewage disposal, for R.D.C. Deposit £5 5s. Tenders by January 8.

Peterborough.—Annual roding of partial dykes contract and roding of sewage effluent channel, for City Council. Documents from the City Engineer, Town Hall, Peterborough. Tenders by December 11.

***Rawtenstall, Lancs.**—Construction of culvert at Meadow Head tip, for B.C. Deposit £2 2s. Tenders by December 12.

***Rayleigh, Essex.**—Western area sewage disposal scheme, Stage 1, for U.D.C. Tenders by December 28.

Rochdale, Lancs.—Reconstruction of sewers and storm water overflow, for B.C. Documents from the Borough Surveyor, Town Hall, Rochdale. Tenders by December 18.

***Seisdon, Staffs.**—Trysull and Seisdon sewerage scheme, contract 1, for R.D.C. Deposit £5 5s. Tenders by February 3.

Slough, Bucks.—Chalvey Grove sewerage scheme, for B.C., comprising excavating trenches, and providing, laying and jointing approximately 500 lin. yd. of 7in. diameter

iron pipes, together with the construction of manholes, a small reinforced concrete pumping station sump, and appurtenant works. Documents from the Borough Engineer, Town Hall, Slough. Deposit £2 2s. Tenders by Dec. 20.

Tamworth, Staffs.—Following for B.C.: (a) Foul sewer—the laying of 2,722 yd., of 9 in. and 12 in. diameter glazed stoneware foul sewer, including all ancillary works, from Browns Lane to the sewage disposal works, Cotton Lane; (b) storm water outfall sewer—the laying of 27 in., 30 in. and twin 15 in. diameter pipes, the cleaning of existing culvert under main railway line, and the widening of existing watercourse (approximately 250 lin. yd.), including all ancillary works, to form new outfall sewer from Browns Lane to River Anker. Documents from H. F. Bruce Smith, Borough Engineer and Surveyor, Municipal Offices, Tamworth. Tenders by Dec. 12.

Tottington, Lancs.—The diversion of approximately 60 lin. yd. of 9 in. foul sewer on the Leemans Hill Estate, including the construction of new manholes and crossing beneath a stream, for U.D.C. Documents from the Engineer and Surveyor, Town Hall, Tottington, near Bury. Deposit £3 3s. Tenders by Dec. 16.

Whiston, Lancs.—Clock Face Road, Bold, 36 in. diameter surface water sewer, for R.D.C., comprising the provision and laying of approximately 70 yd. of pre-cast concrete pipe sewer together with appurtenant works. Documents from the Engineer and Surveyor, Council Offices, Whiston, Prescot. Tenders by Dec. 20.

STREET LIGHTING

Abergele, Denbighs.—Installation of class A street lighting in various roads, for U.D.C. Tenders by December 19.

Beddington and Wallington, Surrey.—Supply and erection of 326 group B Stanton concrete columns and brackets, with Revlo lanterns, 60-W sodium lamps and control gear, for B.C. Documents from the Borough Engineer, Town Hall, Wallington. Tenders by Dec. 15.

Bideford, Devon.—Twenty five group A lighting units on A.386, for B.C. Deposit £1 1s. Tenders by December 9.

Braintree and Bocking, Essex.—Street lighting—group B, stage IV, for U.D.C.: (1) Taking delivery and erection of 81 group B, pre-stressed concrete columns; (2) supply, erection and wiring up of 78 45/60 watt sodium lanterns; (3) supply, erection and wiring up of four fluorescent lanterns; (4) the laying of cable ducts across carriageways; (5) removal of existing installations and incidental works. Documents from the office of the Engineer, Town Hall, Braintree. Deposit £2 2s. Tenders by December 29.

Buntingford, Herts.—Supply and erection of 18 concrete or steel columns, complete with 140-W sodium lanterns and lamps, on trunk road, A.10, for Parish Council. Documents from A. P. Westover, clerk, Sandon Lane, Buntingford. Deposit £2. Tenders by Jan. 1.

Myddelwy, Mon.—Provision of group A street lighting on approximately one and a half (1½) miles of class II road, Plough Inn, Penmaen Road to Penmaen, for U.D.C. Lighting will be of the sodium type. Providing and laying of underground cable, works in connection therewith, erection of columns and supply of lanterns uplift brackets, etc., and installation complete. (Columns will be supplied by the Council). Documents from the Engineer and Surveyor, Council Offices, Pontlanfraith, Blackwood, Mon. Deposit £2 2s. Tenders by December 19.

Plympton St. Mary, Devon.—Installation of 75 street lighting columns and 80-W M.V. control gear at Stentaway estate, for R.D.C. Documents from the Engineer and Surveyor, Council Offices, Plympton. Deposit £2 2s. Tenders by Dec. 16.

Pontypool, Mon.—Provision, installation and bringing into service of some 450 200-W sodium street lighting units, including for lamps, lanterns, tubular steel columns, control gear and fittings, and for the provision and laying of some 25,000 lin. yd. of underground cable connection, including for reinstatement, for U.D.C. Documents from the Engineer and Surveyor, Municipal Offices, Pontypool. Deposit £5 5s. Tenders by Dec. 28.

Tunbridge Wells, Kent.—Supply and erection of 33 Stewart and Lloyds 25 ft. steel lighting columns with G.E.C. lamps and lanterns, together with ancillary works at Lansdowne Road and Sandrock Road, for B.C. Documents from the Borough Engineer and Surveyor, Town Hall, Tunbridge Wells. Deposit £2 2s. Tenders by Dec. 11.

Wigan, Lancs.—Erection of 255 concrete street lamp columns complete with fluorescent lamps and fittings in various parishes (class B, scheme 3), for R.D.C. Documents from the Surveyor to the Council, 10 Bridgeman Terrace, Wigan. Tenders by Dec. 11.

INTERNATIONAL CONTRACT

Sudan.—Supply of following for the Sudan Gezira Board: five water tank trailers, mild steel, galvanised inside and outside, complete with lean-to tents, with a total capacity of 200 gallons, and five fuel tank trailers, mild steel, 4-ton capacity, complete with lean-to tents and framework. Apply to The Sudan Gezira Board Representative (U.K.), Castle Chambers, Castle Street, Liverpool 2, for specifications. Closing date in the Sudan, January 15.

AWARDS

BUILDING AND DECORATING (See also Housing Schemes)

Aldeburgh, Suffolk.—Improvements to matrons accommodation and provision of office at Aldeburgh Cottage Hospital, for East Anglian Regional Hospital Board—G. Constance and Son, Aldeburgh, £1,045, (recommended).

Ashton-under-Lyne, Lancs.—Supply and retention of scaffolding, for B.C.—H. P. Hunter, Ltd., 258 Katherine Street, Ashton-under-Lyne, £532 (recommended, subject to Ministry approval).

Banbridge, Down.—Improvements and repairs to 15 Labourers' Cottages at Ballyvieve (1), Ballykelly (7) and Ballysalagh (4), for R.D.C.—J. G. McKinney, engineer and surveyor—H. A. Proctor, Loughbrickland, Scarva, £11,450.

Barnsley, Yorks.—Following sub-contractors, for B.C.: Metal windows for the new police headquarters—Crittall Manufacturing Co., Ltd., 54 Campo Lane, Sheffield, 1; Terrazzo pavings and flush doors for the College of Technology—Conways (tiles and terrazzo), Ltd., £3,001 and Shapland and Petter, Ltd., £1,331 respectively (recommended).

Basildon, Essex.—Construction of a permanent steel-framed vehicle workshop 48 ft. x 154 ft., together with concrete aprons, drainage, and water services, for U.D.C.—H. C. Jones, Ltd., 183 High Town Road, Luton, Beds., £37,658 (work to commence December).

Battersea.—Improvements to 30-32, 33-35 and 46-48 Odger Street and 41-43 Joubert Street, Latchmere estate, for B.C.—Direct Labour, £1,409, £1,495, £1,495 and £1,409.

Improvements and repairs at 118-120 Sheepcote Lane, for B.C.—H. Randall and Sons, Ltd., 72 Webb's Road, London, S.W.11, £1,643 (recommended).

Bedford.—Erection of selective school at Brickhill estate, for Co.E.C. J. C. Barker county architect—Arthur Sanders, Ltd., Rectory Road, Rushden, Northants., £259,275 (accepted); J. M. Hill and Sons, Ltd., £285,084; Thomas Lowe and Sons, Ltd., £308,614; Robert Marriott, Ltd., £295,713; W. J. Bushby, Ltd., £292,694; Drabble Construction, Ltd., £269,021.

Belfast.—Design, supply, fabrication and erection of structural steelwork, etc., for a factory extension at Broadway, for Ministry of Commerce—R. J. McKinney and Co., Ltd., 195 York Road, Belfast, 15.

Berkhamstead, Herts.—Provision of the framework and erection of a house and the building work of the cowhouse, dairy, food store, etc., at Potten End, scheme 3, for C.C.—Precon, Ltd., £1,290 and Axtell and Harborough, Ltd., 27A High Street, St. Albans, £6,235 respectively (recommended).

Birmingham.—Design and construction of a bakery and warehouse with a two-storey office block on a 75,000 sq. ft. site in Garrets Green Lane, Yardley, for Barrows Stores, Ltd.—T. G. Construction Co., Ltd., Etitingshall, Wolverhampton. Estimated cost £200,000. Work commenced.

Bishop's Stortford, Herts.—Completion of Summercroft J.M.I. School, for C.C.—J. A. Elliott, Ltd., 133 Stansted Road, Bishop's Stortford (recommended extension of contract, subject to Ministry approval). Estimated cost £11,129.

Blackburn, Lancs.—Erection of an office block on the Whitebirk Industrial Estate, for the Northmix Ready Concrete, Ltd., Alan Chambers and Associates, architects and town planners, 2 Grimshaw Street, Burnley—Howarth Construction Co., Trafalgar Street, Burnley. Estimated cost £22,000-£25,000.

Blyth, Northumb.—Erection of three-storey office block for the yardmaster and stait superintendents' staff for British Railways—H. and R. Wylie, Morpeth, Northumberland.

Bradford, Yorks.—Following for City Council: Erection of an additional classroom at

Shirley Manor Infants' School—Thomas Obank and Sons, Ltd., Bradford, £5,250; Alterations to science laboratory at Drummond Boys' Secondary School—Marshall and Craven, Ltd., Bradford, £1,098 (recommended).

Provision of additional toilet accommodation in the terminal building at the Airport—Direct Labour (recommended). Estimated cost £4,000.

Bury St. Edmunds, Suffolk.—Provision of pre-fabricated classroom for preliminary training school at West Suffolk General Hospital, for East Anglian Regional Hospital Board—Terrapin, Ltd., 6 Porter Street, London, W.1, £2,185 (recommended).

Cardiff.—Construction of an oil terminal on south side of the Roath Dock, for Jet Petroleum, Ltd.—Constructors John Brown, Ltd., C.J.B. House, Eastbourne Terrace, London, W.2. Estimated cost £500,000 (work about to commence).

Carlisle, Cumb.—Provision of additional cells and other accommodation at the Crown Court, for C.C.—John Laing Construction, Ltd., Dalston Road, Carlisle, £8,136.

Chesterfield, Derbys.—Erection of a multi-storey office block to house part of the G.P.O. accountant-general's department, for Ministry of Works—M. J. Gleeson (Contractors), Ltd., Chesterfield Road, Sheffield, 8, £970,000 (work to commence next month).

Cosford, Suffolk.—Improvements to the following houses for R.D.C.: 1-4 Rectory Road, Whatfield and 1-4 Flowton Road, Elmsett—C. H. Clark, Whatfield, Cosford, £2,929 and £1,946 respectively; 1-6 Church Road, Lindsey—W. B. Kingsbury and Sons, Ltd., Boxford, £3,057.

Coventry.—Erection of seven shops to link two blocks of shops and flats in the Bell Green area, for City Council—G. Wimpey and Co., Ltd., Hammersmith Grove, London, W.6 (recommended). Estimated cost £58,518.

Croydon, Surrey.—Conversion works at St. Giles' Special School, for B.C.—Amber Builders, Ltd., Croydon, £1,093.

Dagenham, Essex.—Erection of an office, printing works and garage at Selinas Lane, for the Ilford and East London Publications, Ltd.—Hammond and Miles, Ltd., Serafont Road, Ilford, W. J. Lewis and Sons, architects, 68 Cranbrook Road, Ilford, and W. W. Green and Partners, quantity surveyors, Seven Sisters Road, Finsbury Park, London, (Work to commence December).

Dunstable, Beds.—Construction of a circular Roman Catholic Church at West Street, Arthur Farebrother and Partners, architects, Seymour Grove, Manchester 16—R. Willis and Sons, Ltd., 123 Vandyke Road, Leighton Buzzard. Estimated cost £73,000. Work has just commenced.

Fifehire.—Erection of new transport depot in Cupar, for C.C.—Direct Labour, £44,189 (accepted); R. S. Wilson (Builders), Ltd., £46,250.

Fulham.—Second stage redevelopment of nursery area at South Park, as follows, for B.C.: General building work—A. H. Franklin and Sons, Ltd., 261 Lillie Road, London, S.W.6, £3,241 (recommended); G. Garner and Son (Builders), Ltd., £3,288; E. J. Lacey and Co., Ltd., £3,356; W. J. Marston and Son, Ltd., £3,562; horticultural buildings—W. Richardson and Co., Ltd., £5,564 (recommended); Mackenzie and Moncur, Ltd., £5,863.

Guildford, Surrey.—Erection of 12 additional garages at Bushey Hill housing estate, for B.C.—Langham Cement Products, Ltd., Godalming. Estimated cost £1,440.

Hertfordshire.—Provision of seven mobile classrooms for four schools for C.C.—Robert H. Hall and Co. (Kent), Ltd., Paddock Wood, Kent (recommended, subject to Ministry approval). Estimated cost £10,900.

Hove, Sussex.—Erection of ladies' and gentlemen's conveniences in Goldstone Villas, for B.C.—Edward Cox and Co., Ltd., 12/14 Richardson Road, Hove, 3, £5,638.

Huddersfield, Yorks.—Alterations and additions to cattle market, for B.C. S. M. Richmond, borough architect—James Miller and Partners, Ltd., Ingsbrook Works, Ing Road, Wakefield. Work commencing Dec.

Huntingdon.—Provision of kitchen and covered ways at Walnut Tree Hospital, for East Anglian Regional Hospital Board—F. B. Thackray and Co., Ltd., Huntingdon, £11,761 (recommended).

Ipswich, Suffolk.—Alterations to Victor Bonney Ward and X-ray department at Ipswich and East Suffolk Hospital (Heath Road Wing), for East Anglian Regional Hospital Board—J. F. King and Son, Ipswich, £4,434 (recommended).

Isle of Mull.—Construction of a new passenger pier at Craignure—W. and J. R. Watson, Ltd., 43 Station Road, Edinburgh, 12.

- Estimated cost £150,000. Work just commenced.
- Loddon, Norfolk.**—Further instalment of up-grading and installation of lift at Hales Hospital, for East Anglian Regional Hospital Board—W. S. Lusher and Son, Norwich, £13,772 (recommended).
- London.**—Provision of a row of about 100 concrete piles to form a retaining wall for the underground car park proposed at the East Carriage Drive of Hyde Park—Economic Foundations, Ltd., Victoria Street London, S.W.1.
- Morecambe, Lancs.**—Exterior and interior painting and decoration of Sandylands School and Morecambe Technical School, for C.C.—A. Dempsey and Son, Ltd., Lancaster, £1,518 and J. Kellert, Ltd., Morecambe, £1,943 respectively.
- Nelson, Lancs.**—Erection of the Walton Arms Hotel in Walton Lane, for Massey's Burnley Brewery, Ltd., Hitchin, Pickup and Halsell, architects, Calder House, 8 Calder Street, Burnley—Howorth Construction Co., Ltd., Trafalgar Street, Burnley.
- Newcastle upon Tyne.**—Erection of a new school of agriculture at College Avenue, for the Council of King's College. W. B. Edwards and Partners, architects, Cathedral Buildings, Dean Street, Newcastle—Stanley Miller, Ltd., North Street, Newcastle upon Tyne (work about to commence).
- Newmarket, Suffolk.**—Enclosure of block "B" covered way at Newmarket General Hospital, for East Anglian Regional Hospital Board—H. Holland, Ltd., Newmarket, £2,262 (recommended, negotiated tender).
- Norwich.**—Following for East Anglian Regional Hospital Board: Provision of engineering workshops at West Norwich Hospital—Ford and Carter, Ltd., Norwich, £6,761 (recommended, negotiated tender). Improvements to first floor at Whittingham Hospital—H. C. Greengrass and Sons, Ltd., Norwich, £4,237 (recommended).
- Nottingham.**—Supply and installation of fittings for the new physics laboratory at Nottingham University—Shapland and Pether, Ltd., Raleigh Works, Barnstaple, Devon, £76,000 (work commenced).
- Rotherham, Yorks.**—Construction of a rolling mill at the Park Gate works, Rotherham, for Park Gate Iron and Steel Co., Ltd. Bylander, Waddell and Partners, consulting engineers, 169 Wembley Park Drive, Wembley, Middx.—Sir Robert McAlpine and Son, Ltd., 80 Park Lane, London, W.1 (recommended). Estimated cost £5m.
- Royston, Herts.**—Extension to the cottage at Steep Morden to provide bathroom, w.c., etc., scheme 14, holding 4, for C.C.—W. A. and F. Bray, West End, Ashwell, £1,436 (recommended).
- St. Marylebone.**—Repairs to roofs and parapet walls at Townsend estate and Bartonway, for B.C.—Lister and Co. (Builders), Ltd., 3 Holborn Viaduct, London, E.C.1, £1,222 (recommended).
- Salford, Lancs.**—Erection of a new Broughton High School for Girls for the E.C. Bradshaw, Gass and Hope, architects, 19 Silverwell Street, Bolton—Stanley Porter, Ltd., 214 St. George's Road, Bolton, £327,750.
- Sheffield.**—Erection of St. Mark's Church, Broomhill. George Pace, architect, 18 Clifton Green, York.—A. Bradbury and Son (Contractors), Ltd., Cemetery Road, Sheffield, 11.
- South Shields, Dur.**—Erection of club premises at Bath Street for the South Shields Supporters' Club. Page, Son and Hill, architects, 75 King Street—J. Cummings, Matamba Terrace, South Shields. Work commenced.
- Factory additions, Simonside Industrial estate for Elsey and Gibbons, Ltd., Page, Son and Hill, architects, 75 King Street—Milton Swales, Ltd., Imeary Street, South Shields.
- Erection of a factory on Simonside industrial estate for the Industrial Estates Management Corporation, Team Valley, Gateshead. Jack Cotton, Ballard and Blow, architects, 48 Pilgrim Street, Newcastle-upon-Tyne—J. Cummings, Matamba Terrace, Sunderland. Work commenced.
- Stockton-on-Tees, Dur.**—Erection of offices, warehouse, etc., at Portrack Lane for J. W. Towers and Co., Ltd., Victoria House, Widnes—C. Tennet (Contractors), Ltd., Church Road, Stockton-on-Tees.
- Sutton and Cheam, Surrey.**—Erection of soil mixing shed at the Borough Sports Ground and office at Rose Hill Recreation Ground, for B.C.—Concrete Utilities, Ltd., Great Amwell, Ware, Herts, £1,768 (recommended, negotiated tender).
- Taunton, Som.**—Construction of the Taunton Deane Crematorium—C. P. Unwin and Son, Ltd., 33 St. Peter Street, Tiverton, Devon, £96,715. Robert Potter and Richard Hare architects, De Vaux House, Salisbury;
- E. W. H. Gifford and Partners, consulting engineers, 16 Carlton Crescent, Southampton; and Bernard and Son, quantity surveyors, 26 Orchard Street, St. Augustine's, Bristol, 1.
- Wallsend, Northumb.**—Erection of factory block, Neptune Road, for The Thermal Syndicate Co., Ltd. L. J. Couves and Partners, architects, Grainger Chambers, Hood Street, Newcastle upon Tyne—Kendall Cross and Co., Mill House, West End, Ponteland, Northumb.
- Ware, Herts.**—Erection of covered area and store at rear of the hospital block at Western House, for C.C.—Roberts and Oliver, Ltd., 79 High Road, Broxbourne, £1,925 (recommended, subject to the Regional Hospital Board).
- Watford, Herts.**—Redevelopments and minor repairs at Watford Central Police Station, for C.C.—Clifford and Gough, Ltd., 96 Eastcourt Road, Watford, £858 (recommended).
- Westminster.**—Conversion of 27 service flats into self-contained flats and erection of a new penthouse at St. James' Place, S.W.1, for St. James' Securities (1960), Ltd.—Holland & Hannen and Cubitts (Great Britain), Ltd., 1 Queen Anne's Gate, London, S.W.1. W. H. Saunders and Son, architects, 53 Goodge Street, W.1. E. R. Babbs and Sons, quantity surveyors, 187 Piccadilly, W.1.
- Wideopen, Northumb.**—Erection of Presbyterian Church. A. K. Tasker and Partners, architects, 25 New Bridge Street, Newcastle upon Tyne—Thomas Curry and Sons, Meldon Street, Newcastle upon Tyne (work about to start).
- Willesden, Middx.**—Following for B.C.: Repairs and adaptations at 26 Stonebridge Park, 46 Oxford Road, 58 Princess Road and 17 Wendover Road—E. A. Birch, 4 Compton Road, London, N.W.10, £1,526, £1,115, £1,454 and £886 respectively (recommended).
- 81 Barry Road—Lloyd Building Co., 2a Coleraine Road, London, N.8, £1,050; 61 Cambridge Road and 56 Princess Road—Kelly (Builders), Ltd., 10 Shrewsbury Mews, London, W.2, £1,170 and £1,395 respectively (recommended).
- 19 Princess Road—E. A. Birch, £1,577 (recommended, subject to Ministry approval).
- Wirral, Ches.**—Erection of the new church of St. Michael and All Angels at Frankby Road, Newton, West Kirby—Henry Jones and Sons, Ltd., Dee Side, Holt, near Wrexham. Estimated cost £26,000. Paterson and Macaulay, architects, 83 Wirral Gardens, Bebington, Ches.; Dansken and Purdie, quantity surveyors, India Buildings, Water Street, Liverpool, 2; and W. G. Curtin, consulting engineers, 68 Rodney Street, Liverpool.
- Woolwich.**—Erection of 242 married soldiers' quarters, a N.A.A.F.I. shop and laundry, with roads and site works, at Shooters Hill Road, for the War Office—Rush and Tompkins, Ltd., 109 Station Road, Sidcup, Kent, £820,000.
- Worcestershire.**—Extensions to the Kidderminster College of Further Education for E.C.—W. Cooper and Son, West Street, Blackheath, Birmingham, £280,013.

DEMOLITION

- Birmingham.**—Demolition and site clearance of following for City Council: 10-14 Bath Row, Lee Bank—J. Chapman, 203 Balsall Heath Road, Birmingham, 12; Bull Street, Steelhouse Lane and Dr. Johnson Passage—Birmingham and Midlands Demolition Co., 143 Sandy Lane, Birmingham, 11; 27, 27a and 27b Paradise Street and 82, 83, 84 and 86 Suffolk Street—Coleman and Co., 133 Albert Road, Birmingham, 33; 54-58 Moor Street—F. C. Richardson and Son, Ltd., 130 Summer Lane, Birmingham, 6; Seymour House and works, Seymour Street—M. Cunningham and Son, Ltd., 30 Brighton Road, Birmingham, 12; Wycliffe Baptist Church, Bristol Street—J. and T. (Haulage and Demolition), Ltd., 21 Great Colmore Street, Birmingham, 15.
- Brentford and Chiswick, Middx.**—Demolition of 107 Barrowgate Road, Chiswick, for B.C.—Leonard Perlin, Ltd., 411 St. Margarets Road, Isleworth, £94 (recommended, subject to Ministry approval); Sir Robert McAlpine and Sons, Ltd., £400; Flynn Excavations, Ltd., £229; A. E. Cole, Ltd., £179; London Demolition Co., Ltd., £167.
- Burton-upon-Trent, Staffs.**—Demolition of a row of buildings in Station Street in connection with the erection of licensed premises for Worthington and Co., Ltd.—F. W. Jones, High Bank, Ashby Road, Woodville, Burton-upon-Trent.
- Camberwell.**—Demolition of Grange Lodge, and Hillcrest Lodge, Sunray Avenue, for B.C.—Gorst and Co., Ltd., 33 Floyd Road, London, S.E.7, £317 (recommended).
- Huntingdon and Godmanchester, Hunts.**—Demolition of Orchard Bungalow at the corner of St. Peter's Road and Windsor Road and of Slade Cottage, St. Peter's Road, together with clearance of both sites, the removal of drains and filling in of septic tank, for B.C.—T. J. Masters, 73 Ermine Street, Huntingdon, £23 (accepted); C. Housden, £95; T. F. Clifford, £60; G. H. Gaywood, £70; E. Butterworth, £59; A. Clark, £90; F. M. Sparrow (Contractors), Ltd., £350; Lunley Demolitions, Ltd., £16; W. Doherty, £45; F. C. Hayward, £235. Work commenced.
- Islington.**—Demolition of refuse containers on pre-war housing estates and construction of new chambers, for B.C.—W. Richards and Sons (Hendon), Ltd., Church Road, London, N.W.4, £11,780 (recommended).
- Kidderminster, Worcs.**—Removing and retaining the roofing and site clearance at the Old Cattle Market, for B.C.—Costello's Plant and Hire Co. Ltd., Cheltenham, to pay Corporation £557.
- Lincoln.**—Demolition of Sixwood pumping station, for the Witham First District Internal Drainage Board—Direct Labour.
- Lowestoft, Suffolk.**—Demolition of various industrial buildings at Town Quay estate, for B.C.—H. Folkes and Son, Great Yarmouth, £370 (recommended).
- Sutton and Cheam, Surrey.**—Demolition of 75 Benhill Avenue, for B.C.—G. Turner, 200 Weston Street, London, S.E.1, £10 (recommended).
- Walsall, Staffs.**—Demolition of Hawley Bridge at Beechdale estate, for B.C.—O. J. W. Johnson and Sons, Walsall, £470 (recommended, subject to Ministry approval).

ELECTRICAL

- Barnsley, Yorks.**—Electrical services for the erection of the new police headquarters, for B.C.—T. W. Broadbent, Ltd., Elm Parade, Huddersfield.
- Belfast.**—Installation of electrical services in the new Queen's University electrical and mechanical building at Stranmillis Road—B. French, Ltd., Adelaide Street, Belfast. Estimated cost £250,000.
- Honiton, Devon.**—Electrical wiring in council houses for B.C.—R. T. Delve, 79 High Street, Honiton, £2,485 (recommended). Tre-Vetts, £2,530; South Western Electricity Board, £2,843; Elston and Elston, £2,428.
- Hull.**—Following for City Council: Electrical installation to (a) 219 dwellings, Boothferry estate—Reliance Electrical Co., 500 Ingemire Lane, Kingston-upon-Hull. Electrical installations: (a) 62 dwellings, Hebden Avenue and Holderness Road; (b) 113 dwellings Boothferry estate—(a) G. I. Spaven (Bridlington), Ltd., 31 Prospect Street, Bridlington; (b) Hobson and Scott, Ltd., 221 Chippinghouse Road, Sheffield.
- Islington.**—Renewal of lantern lights in the Caledonian Road and Essex Road Baths for B.C.—Haywards, Ltd., Union Street, London, S.E.1, £1,909 (recommended).
- Kingston-upon-Thames, Surrey.**—Supply of traffic signal equipment for the Villiers Road/Hawks Road junction, for B.C.—Automatic Telephone and Electric Co., Ltd., Strowger House, 8 Arundel Street, London, W.C.2, £1,675 (recommended).
- Manchester.**—Supply, erection and commissioning of an announcement system to serve the new terminal building at Manchester Airport, for City Council—Tampro Products, Ltd., Norwood Road, West Norwood, London, S.E.27, £3,479.
- Walsall, Staffs.**—Construction of a sub-station at Bustleholm, near Walsall for the Central Electricity Generating Board—Tarmac Civil Engineering, Ltd., Ettingham, Wolverhampton.
- Willesden, Middx.**—Electrical work for the Cinema site at South Kilburn—Electric Contracts (London), Ltd., 53 Victoria Street, London, S.W.1, £15,891.

FENCING

- Barking, Essex.**—Supply and erection of concrete palisade fencing at Upney Lane bridge approaches and concrete gates and fences at Mayesbrook Meadow, contract 1, for B.C.—Bell and Webster, Ltd., Essex Road, Hoddesdon, Herts, £697 and Concrete (Southern), Ltd., Green Lane, Hounslow, Middx., £1,451 respectively (recommended).
- Shepshed, Leics.**—Erection of concrete post and chain link fencing at Glenmore estate, for U.D.C.—Beeby Brothers, Remington, Notts.
- Stoke-on-Trent, Staffs.**—Correction. — Supply and fixing wrought iron fencing and gates to the extensions at the junior training centre, Fenton, for City Council—Thomas Bowen, Ltd., Bowen Street, Parkfields, Wolverhampton.
- Sutton and Cheam, Surrey.**—Re-wiring and re-netting of six hard tennis courts at Cuddington Recreation Ground, for B.C.—

W. H. Gaze and Sons, Ltd., 19 High Street, Kingston-upon-Thames, £404 (recommended).

GAS AND WATER SUPPLY

Armagh.—Construction of a pump and chlorine house, also a partially underground reinforced concrete reservoir, together with all necessary internal electric wiring, pipe-work, and all ancillary work, all in the townland of Ballylane, for R.D.C. A. P. Mayne, engineer—Hutchinson's (Tandragee), Ltd., Armagh Road, Tandragee, Co. Armagh, £2,616 (accepted); H. M. D. Gray, £3,615; Farrans, Ltd., £4,205. Work commencing Dec.

Caitness.—Raising of the top water level of Loch Calder in connection with the Regional water scheme, phase IIB—contract B24, for the C.C. Binnie Deacon and Gourley, consulting engineers, Artillery House, Artillery Row, London, S.W.1—J. Baxter and Sons, Ltd., Contin, Ross-shire, £30,854. Work commencing Jan. 1.

East Elloe, Lincs.—Laying of approximately 6,100 lin. yd. of 10in diameter spun-iron water main, together with valves, hydrants, and ancillary works, for R.D.C. H. Rippon, water engineer and manager—W. Emerson, Ashby, Spilsby, Lincs., £10,429 (accepted); Ashby, Spilsby and Son, Ltd., £10,716; W. R. Bates and Co., Ltd., £23,380; Biggs, Wall and Co., Ltd., £16,924; Roads and Pipelines, Ltd., £20,727; M. Molloy, Esq., £11,406; Martin Mullen and Co., £14,565; N. J. K. Plant Hire (Leeds), Ltd., £23,109; Stamford Construction, Ltd., £13,051; Edward Thompson, Ltd., £15,597; T. Woods (Leicester), Ltd., £22,204; Work commencing early 1962.

Inverness-shire.—Construction of a mass concrete dam on the Allt A' Ghointein, slow sand filters of a capacity of 12,000 gallons per day, and the provision of materials for, and laying of, approximately 4,500 yd. of 2in. and 3in. diameter A.C. or P.V.C. pipe at Elgol, Isle of Skye, for C.C.—James Campbell and Son Ltd., Inverness (recommended subject to the approval of the Department of Health for Scotland).

Kenilworth, War.—Supply and installation of one electrically operated borehole pump at Mill End Station borehole 2 for U.D.C.—Pulsometer Engineering Co., Ltd., Oxford Road, Tilehurst, Reading.

Larne, Antrim.—Magheramorne water extension, for R.D.C., comprising the supplying and laying approximately 2,234 lin. yd. of 4in. diameter spun iron water main, together

with the necessary special pipes and fittings and everything required for the proper completion of the works. O. N. Wheeler, architect, 9 Donegal Square South, Belfast—Loughside Quarries, Magheramorne, £5,066.

North Devon.—Construction of a reinforced concrete covered service reservoir, with earthen embankments, to contain 1,000,000 gallons, and other ancillary works in connection therewith, adjoining the existing Fort Hill Service Reservoir in the Borough of Barnstaple, contract 103, for Water Board, Rofe and Rafferty, consulting engineers, 9 Brewer's Green, Westminster, S.W.1—C. P. Unwin and Sons, Ltd., Tiverton, Devon, £32,844.

Omagh, Tyrone.—Water extensions at Carony, for R.D.C.—Arthur O'Neill, Cavanavarr, Drumquin, £1,048.

Stratford-upon-Avon, War.—Supply of one 35 B.H.P. submersible booster pump for Warwick Road Pumping Station, for B.C.—James Beresford and Son, Ltd., Birmingham, £790 (recommended).

HEATING AND VENTILATING

Barnsley, Yorks.—Mechanical services for the erection of the new police headquarters, for B.C.—Aswell and Nesbit, Ltd., 32 Headingley Lane, Leeds, 6.

Bishop Auckland, Dur.—Construction of electric arc furnace for Wilson's Foundry, South Church Road—G. Stephenson (Builders), Ltd., Holdforth Mill, Bishop Auckland.

Epsom, Surrey.—Installation of heating, hot and cold water supplies in new office block, for W. S. Atkins and Partners—Brightside Heating and Engineering Co., Ltd., Sheffield.

Kingston-upon-Thames, Surrey.—Provision of a boiler house, heating and hot water supply at Four Acres executive training establishment, George Road, for Unilever, Ltd.—Brightside Heating and Engineering Co., Ltd., Sheffield.

Manchester.—Mechanical engineering services for the maternity and operating theatre blocks at Withington Hospital, for the Regional Hospital Board. R. R. Jennings and Partners, consulting engineers, 39 Byrom Street, Manchester, 3—Brightside Heating and Engineering Co., Ltd., Ecclesfield, Sheffield.

Midlothian.—Installation of heating and hot water services at Lasswade Secondary School extension, for C.C.—Brightside Heating and Engineering Co., Ltd., Sheffield.

Poole, Dorset.—Design and installation of a large air conditioning scheme for the production area, one cold room and low temperature cabinet and a low humidity room for the handling of hygroscopic materials, for British Drug Houses—Brightside Heating and Engineering Co., Ltd., Sheffield.

Sheffield.—Heating and ventilating services to administration office block extensions of Shepcote Lane Rolling Mills, Ltd.—Brightside Heating and Engineering Co., Ltd., Sheffield.

Willesden, Middx.—Conversion of the heating installation to oil firing at the Kensal Rise Primary Schools, for B.C.—R. F. Landon and Partners, Ltd., 5 David Road, Poyle Trading Estate, Slough, Bucks. (recommended). Estimated cost £1,150.

HOUSING SCHEMES

Ballycastle, Antrim.—Four pairs semi-detached bungalows together with incidental works at Turraloskin, Coleraine Road, Ballycastle, for R.D.C.—Alex Cusick, Main Street, Armoyle, £15,290 (accepted); Wm. Smyth and Sons, Ltd., £15,873; Lawrence Kelly, £15,975; G. Wark, £17,927. Work to commence June, 1962.

Barking, Essex.—Provision of metal windows for contract II Hepworth Gardens, for B.C.—Colchester Steel Constructional Co., Ltd., Magdalen Works, 8 Magdalen Street, Colchester, £853 (recommended).

Basingstoke, Hants.—Housing development, group B, South Ham housing estate for B.C.—Ronald Lyon Construction, Ltd., Auckland House, New Zealand Avenue, Walton-on-Thames, Surrey, £470,000 (subject to Ministry approval).

Beverley, Yorks.—Contract 490—four pairs of semi-detached houses and two blocks of two-storey one-bedroom flats at Woodmansey, for R.D.C. G. Palfreyman, architect and surveyor, 22 Lairgate, Beverley—T. Wright and Son (Hull), Ltd., 57 Regent Street, Hull. Work commencing Dec.

Brechin, Angus.—Twenty houses at Mountskip Road for B.C.—Brickwork, etc.—C. and D. Laird, Old Brechin Road, Forfar, £15,211; carpenter and joiner—Wm. Black and Son, Ltd., 28 Clerk Street, Brechin, £10,870; glazier—Wm. Cameron and Son, 13 Constitution Street, Dundee, £500; roughcast—D. Hood, Dunlappie Road, Edzell, £3,440; plaster—C. Thompson and Sons, Brechin, £2,717; painter—B.U.C.S., Ltd., Brechin, £1,317; electrical—Stenson and Co., Brechin, £1,647.

PLANT HIRE

JOHN ALLEN & FORD

OXFORD 78241
WOKINGHAM 2175
WHEATLEY 386 & 344

Brentford and Chiswick, Middx.—Four dwellings and four garages at 13 Grosvenor Road, Chiswick, for B.C.—W. J. Irish and Son, Ltd., 53 Townlands Road, Harrow, £15,263 (recommended, subject to Ministry approval); Kelly (Builders), Ltd., £15,689; Perry's (Ealing), Ltd., £17,181; Wembley Construction, Ltd., £16,861.

Canvey Island, Essex.—Three hundred and seventy-two houses, shops and 300 garages at Church Field, Northwick Corner—Charles J. Hollingbery, Furtherwick Road, Canvey Island. Estimated cost £1m.

Chester.—Erection of an additional block of flats at Newtown, for City Council—Shepherd, Taylor and Co., Ltd., Blue Bridge Lane, York, £6,640 (recommended, subject to Ministry approval).

Darlington, Dur.—Twenty-four old people's flats at Mowden Terrace for the B.C. E. A. Tornbohm, borough architect—Mackenzie Brothers, 52 Duke Street, Darlington.

Daventry, Northants.—Fifty dwellings for employees of British Timken, Ltd., for B.C.—Adkins and Shaw (Building Contractors), Ltd., St. James Road, Northampton, £86,815.

Fulbourn, Cambs.—Erection of one pair of semi-detached staff houses at Fulbourn Hospital, for East Anglian Regional Hospital Board—Sargent and Son (Cambridge), Ltd., Fulbourn, £6,135 (recommended).

Hebburn-on-Tyne, Dur.—One hundred and two bungalows on the Ponds site for the U.D.C. R. C. Bestow, surveyor—Direct Labour, £140,845.

Hitchin, Herts.—Sixty Homeville traditional houses, flats and bungalows at Offley housing site, for R.D.C.—Walker and Hawkes, Ltd., 2a Trevor Road, Hitchin.

Hove, Sussex.—Fifty-two flats in Hardwick Road for B.C.—G. T. Crouch, Ltd., Stephenson's Way, Three Bridges, Crawley, £96,544.

Hull.—Erection of three 15-storey blocks of flats in Anlaby Road, for City Council—Truscon, Ltd., 35 Lower Marsh, London, S.E.1, £1,148,107 (recommended).

Hungerford, Berks.—Erection of old people's flatlets at Fairview Road for R.D.C.—Hoskings and Pond, Ltd., West Mills, Newbury, £41,341.

Islington.—Twenty-four dwellings on the sites at 42-60 Mayton Street, for B.C.—Herbert Richardson and Sons, Ltd., Slade Green Road, Erith, Kent, £47,848 (recommended).

Kingston-upon-Thames, Surrey.—Seventeen maisonnettes comprising the four-storey block 'A' at Acre Road, for B.C.—W. J. Whittall and Son, Ltd., Ernest Gardens, London, W.4, £51,701 (recommended, subject to Ministry approval).

Lewisham.—Construction at Ladywell Lodge of accommodation for 21 elderly married couples, for L.C.C.—W. J. Eaglen, Ltd., Chislehurst, Kent, £39,199 (accepted); T. R. Roberts (Builders), Ltd., £39,552; Walter Gladding and Co., Ltd., £42,109. The architect's comparable estimate is £41,233.

Lewisham.—Eighteen flats and eight garages on sites of 9, 10 and 11 Eliot Park, S.E.13, for B.C.—Walter Gladding and Co., Ltd., 14 Davenant Road, London, E.1, £57,770 (recommended); J. A. Proctor, Ltd., £58,897; Robert Hart and Sons, Ltd., £59,678; Walter Lilly and Co., Ltd., £60,266; Henry Kent (Builders), Ltd., £61,079; T. R. Roberts (Builders), Ltd., £61,250; M. J. Gleeson (Contractors), Ltd., £62,395; Leslie and Co., Ltd., £62,478; Rowley Bros., Ltd., £64,121; Croudace, Ltd., £64,340.

Lossiemouth, Moray.—Twenty-two houses at Church Street, Park Place and Moray Street, for B.C.—Weir Housing Corporation, Ltd., South Parks Road, Edinburgh. Estimated cost £35,200.

Oban, Argyll.—One hundred and sixty-two houses and two shops on site above the Corran Brae housing estate, for B.C.—Wm. Loudon and Sons, Ltd., Cleland, Motherwell, Lanarks. Estimated cost £370,000. Work just commenced.

Omagh, Tyrone.—Twelve bungalows and four garages at Gardrum, Dromore and seven houses at Church Street, Fintona, for R.D.C.—McAleer and Teague, 17 Oneills Terrace, Dromore, Omagh, £18,548 and £10,852 respectively.

Poplar.—Twenty maisonnettes in a four-storey block at Devons estate, together with 24 tenants' stores, 15 garages and a motor-cycle store, for L.C.C.—Stewart and Partners, Ltd., 105 Baker Street, London, W.1, £71,041 (accepted); Poolman (Builders), Ltd., £71,437; Carlton Contractors, Ltd., £71,775; H. C. Horswill, Ltd., £72,885; Hammond and Miles, Ltd., £73,126; A. E. Symes, Ltd., £73,476; Wm. J. Jerram, Ltd., £73,856. The architect's comparable estimate is £68,214.

Rotherham, Yorks.—Six blocks of three-storey flats, and two blocks of two-storey flats with 131 garages on the East Herringthorpe Estate, for the B.C. E. J. Manson, borough engineer—O. Weaver and Sons, Ltd., Haddington Road, Mexborough, Yorks. Work commencing mid-January.

Stevenage, Herts.—Approximately 2,000 houses and shops, maisonnettes, etc., at Pin Green, for Development Corporation—L. G. Vincent, Corporation architect—John Mowlem and Co., Ltd., 91 Ebury Bridge Road, London, S.W.1, £5m. (negotiated tender).

Walsall, Staffs.—Eight houses at Yew Tree Road, Delves, for B.C.—J. Dorsett, Commonsidge, Pelsall, £15,400 (recommended, subject to Ministry approval).

Walthamstow, Essex.—Sixty-six dwellings, 40 garages and two motor cycle stores at development site bounded by Rossiya Road, Evelyn Road and Shernhall Street, for B.C.—Direct Labour, £181,048 (recommended).

West Bridgeford, Notts.—Eight Homeville traditional flats at Burnside Road, for U.D.C.—Sweeney and Palmer, Ltd., Bechdale Road, Aspley, Nottingham.

Willesden, Middx.—Following sub-contractors for B.C.: Metal windows and doors for block N at South Kilburn—Crittall Manufacturing Co., Ltd., 210 High Holborn, London, W.C.1, £3,135; wooden doors for blocks C, D and E, at Willesden Lane—F. Hills and Sons, Ltd., 79 Kingsway, London, W.C.2, £1,015.

Withernsea, Yorks.—One hundred and twenty-two Homeville traditional houses and bungalows including roads and footways at Clovelley, for the U.D.C.—T. R. Barnett, Ltd., Curzon Street, Hull.

Wrexham, Denbighs.—Twenty-one houses and six bungalows and site works at Afoneth Penrycae, for R.D.C.—E. W. Gittins and Sons, Ltd., Foundry Buildings, Johnstown, £43,819.

MATERIALS AND SUPPLIES

Ashton-under-Lyne, Lancs.—Provision of minor exterior doors for the Market Hall, for B.C.—Brookes and Co. (1925), Ltd., 128 Stockport Road, Manchester 12, M17 (recommended, subject to Ministry approval).

Bradford, Yorks.—Supply of following traffic signs for City Council—signs—J. Neeldham

WARRINGTON

SITE CLEARANCE CO LTD

With our fleet of the latest Caterpillar equipment and specialised working techniques, we are equipped to handle

REMOVAL OF TREES AND ROOTS MUCK SHIFTING DEMOLITION

ADVISORY SERVICE

'Phone Warrington 340659 or write and a technical representative will be pleased to visit you and your site—to advise and quote on the fastest solution to your site clearance, demolition or muck shifting problem.

and Sons, Ltd., Stockport, £1,103; poles—Hills (Patents), Ltd., Staines, Middx., £1,389; plates—I.R.S. Ltd., Thetford, Norfolk, £273 (recommended).

PLANT AND MECHANICAL TRANSPORT

Bedford, Yorks.—Supply of an earth borer capable of boring holes from nine inches to 18in. in diameter and up to twelve feet in depth for City Council—Tate of Leeds, Ltd., New York Road, Leeds, 2, £617 (recommended).

Cowes, I. of W.—Supply to the Council's Depot, Victoria Grove, East Cowes, of one Austin 4-ton pick-up truck in grey colour, for U.D.C.—Frank Cheverton, Ltd., 4 St. James' Street, Newport, I. of W., £450.

Comport, Hants.—Supply of following for B.C.: One Johnston suction cleaner mounted on an Austin 5-ton chassis—Johnston Bros., Ltd., Dorking, Surrey, £3,450 (recommended).

One 30-cwt. footpath roller—Aveling Barford, Ltd., Invicta Works, Grantham, Lincs. (recommended). Estimated cost £1,126.

PLAYING FIELDS, PARKS, ETC.

Shepshed, Leics.—Preparation and layout of playing fields at Glenmore estate, for U.D.C.—Beeby Brothers, Rempstone Notts.

RAILWAY ENGINEERING

British Railways.—Following contracts placed: Eastern Region:

Modification of hopper discharge arrangement on 87 22/24-ton iron ore hopper wagons to enable them to be used as ballast wagons—The Doncaster Wagon Co., Ltd., P.O. Box 5, Doncaster.

Heating installation for diesel stores building at Doncaster locomotive works—The Freeman Heating Co., Ltd., 314-314a, Balham High Road, London, S.W.17.

Electrical installations at Great Bentley, Kirby Cross, Wivenhoe, Weeley, Frinton-on-Sea and Abresford stations—Electro Installations (London), Ltd., Gresham House, 24 Holborn Viaduct, London, W.C.1.

Construction of two lock keepers' houses at Sheffield Tinsley marshalling yard—H. R. Smith (Contractors), Ltd., 19 Clyde Road, Sheffield, 8.

Construction of offices and messroom block for the District Engineer and Signal Engineer at Marshgate Yard, Doncaster—Charles R. Price, Barnsley Road, Doncaster.

Reconstruction of the superstructure of underline bridge 1495, between Stansted and Elsenham—The Butterley Co., Ltd., Engineering Works, Butterley, near Derby.

Construction of inspection pit with awning, workshop building, provision of drainage and oil separation facilities at King's Lynn—W. and C. French, Ltd., South Brink, Wisbech, Cambs.

North Eastern Region:

Painting of bridges, signal boxes, signals, small buildings, mile and gradient posts on the Thornhill to Farnley line—Arundel (Contractors), Ltd., Louth.

Erection of a new signal box compressor house and ancillary works at Hesse Road, Hull, and modifications to Dairycoates West signal box to form a new relay room—Berwick Building Co., Berwick.

Provision and installation of central heating and in carriage and wagon works stores, Walkergate—H. Morfitt and Son, Ltd., Leeds.

Provision and installation of piles for the control tower at Healey Mills marshalling yard and at Railway Street goods depot, Hull—Holmpress Piles, Ltd., Hull.

Building work for the pre-apprentice training school at York—Wm. Birch and Sons, Ltd., York.

Construction of a new embankment at Hesse Road, Hull—Sangwin, Ltd., Hull.

Earthworks in connection with the new marshalling yard at Stourton—Shellabear Price, Ltd., Walton-on-Thames.

Alterations to the Road Motor Engineer's garage at Valley goods depot, Bradford—The Brighouse Estate (Builders), Ltd., Bradford.

Demolition of four masonry arches and the construction of a new two-span bridge and regrading of approach road at bridge 105 at Bradley junction, near Huddersfield—Ruddock and Meighan, Ltd., Barnsley.

Construction of a new footbridge between Grosvenor Terrace and Bridge Lane, York; the contract includes the provision of fences and laying of approaches, also the demolition and removal of the existing bridge—Concrete Services, Ltd., York.

Construction of control tower at the new Healey Mills marshalling yard—Mitchell Construction Co., Ltd., Peterborough.

Earthworks in connection with the new marshalling yard at Healey Mills—McLaughlan (Knottingley), Ltd., Knottingley.

Overhaul of the coaling plant at Dairycoates Motive Power Depot, Hull—C. Campling (Goole), Ltd., Goole.

Alterations to warehouse, Railway Street goods depot, Hull—Quibell and Son, Ltd., Hull.

Erection of a new signal box at Gateshead—Berwick Building Co., Berwick.

Construction of signal gantries for use by the Chief Civil Engineer, York—Firth Blakeley and Sons, Church Fenton.

Supply of a 30-ton down stroking hydraulic press for use in the maintenance of Hydraulic buffers at Shildon wagon works—Henry Berry and Co., Leeds.

Raising the superstructure and alterations to the approaches and wing walls of bridge 178 at Darfield on the Leeds-Derby line—Ruddock and Meighan, Ltd., Barnsley.

Construction and erection of yard lighting at the new Tyne marshalling yard—K. S. Construction Co., Leeds.

Thirty-cwt. overhead travelling crane for Gateshead freight terminal—John Boyd and Co. (Engineers), Ltd., Annan.

Southern Region:

Waterloo and City Railway Depot—improved staff accommodation—R. Mansell, Ltd., Croydon, Surrey.

Dorking North—accommodation for accounting machines—G. E. Wallis and Sons, Ltd., London, W.C.2.

Slade Green—installation of electrical services in carriage servicing shed—Bective Electrical Co., Ltd., London, W.C.2.

Templecombe—station renovations—Geo. Jones and Son (Contractors), Ltd., London, W.6.

Hamworthy Junction—repairs to Rockley Viaduct—Campbell and McGill, Ltd., Winchester, Hants.

Extension of Electrification—new footbridge at Grove Park station—W. and C. French, Ltd., Buckhurst Hill, Essex.

Kearsney—station renovations—P. and M. Contractors, Ltd., London, S.W.4.

Durnsford Road, Wimbledon—renovation of carriage inspection sheds—Alfred Bagnall and Sons, Ltd., Teddington, Middx.

Newhaven Harbour—construction of new roadway—S. M. Tidy (Public Works), Ltd., Brighton, Sussex.

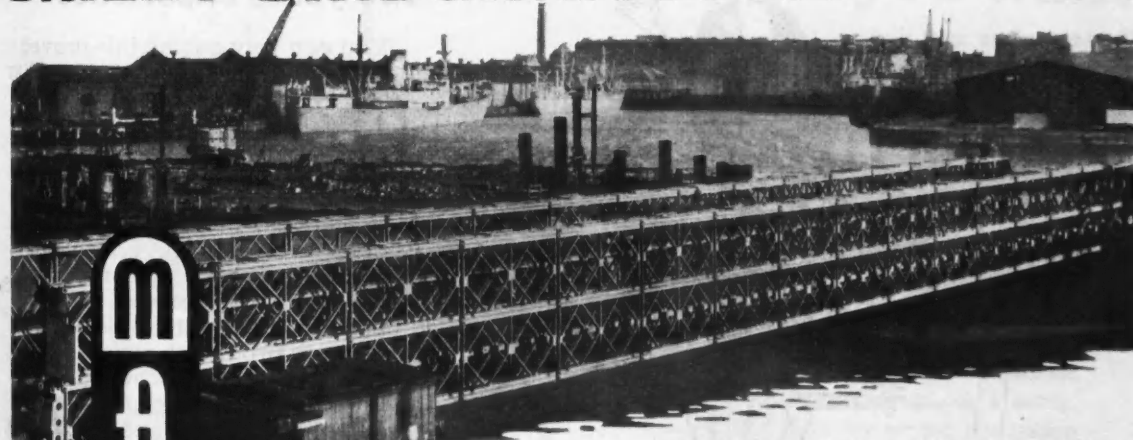
Woking Station—repairs to roofs—Durable Asphalt Co., Ltd., London, N.1.

Rochester—station renovations—John E. Wiltshier and Co., Ltd., Canterbury, Kent.

Ashford District—cleaning and painting of bridges—Wm. Latimer and Co., Ltd., Newcastle-upon-Tyne.

Catford—repairs to Poole River Bridge—Aubrey Watson, Ltd., Henley-on-Thames, Oxon.

BAILEY BRIDGING.....



... ERECTED BY LOCAL LABOUR

This 160 ft. chord reinforced Bailey Bridge was recently erected in Liverpool by local labour supplied by the Mersey Docks and Harbour Board and supervised by our Chief Bridge Engineer, Mr. D. A. Ball, A.M.I.C.E., A.M.I.MECH.E., A.M.I.STRUCT.E. It spans the new 130 ft. wide river entrance lock under construction by the Board as part of a large dock reconstruction scheme. The bridge is designed in extra wide construction to carry a 42 ton NCK Excavator with distributing beams to carry the high bearing load.

Bailey Bridges for Sale, Hire or Hire Purchase

MABEY & JOHNSON LIMITED

54 Victoria Street London SW1 Telephone: VICTORIA 8025 (6 lines)

Manchester Broughton 3959 . Glasgow Central 0261/2 . Works at Hatfield and Watford

Greenwich—removal of Burney Street Bridge—R. Robinson and Co. (Contractors), Ltd., London, S.W.1.

RIVER AND FLOOD PREVENTION WORKS

Bradford, Yorks.—Kings Road flood relief scheme for City Council—Direct Labour (recommended). Estimated cost £5,500.

ROADS, BRIDGES AND SITE WORKS

Aldeburgh, Suffolk.—Following for B.C.: Construction of fine cold asphalt and tarmacadam carriageway on hardcore, footways, and ancillary works at the Franklin Road housing estate—Harper's Transport, Ltd., Colville Road Works, Oulton Broad, Lowestoft, £1,239; making up of Linden Road, Linden Close, Fairfield Road (part) and Springfield Road—Edward J. Edwards (Norwich), Ltd., Plumstead Road, Norwich, £29,193.

Antrim.—Reconstruction of two miles of road between Glenavy and Upper Ballinderry, for C.C.—Moore Bros., Straid Bridge, Gracehill, Ballymena, £196,947.

Armagh.—Reconstruction works, for C.C. 2,500 lin. yd. of the Portadown-Newry Road through Poyntzpass village, 480 lin. yd. of Markethill-Tandragee Road, and 650 lin. yd. of Clare-Richhill Road, 1,340 lin. yd. of Ardmore Road near Lurgan. J. W. M. Johnston, county surveyor—Thomas H. Moore, Tullyvallen Quarries, Newtownhamilton, £71,424, £26,117 and £2,905 respectively. Work commencing Dec. 1.

Ashbourne, Derbys.—Construction of approximately 900 sq. yd. of carriageway and 600 sq. yd. of pavement, together with kerbs and soil and surface water drains, etc., at the waterworks field, off Old Derby Road, stage 1, for U.D.C. P. W. Thornley, engineer and surveyor—Ballidon Quarries, Ltd., Ballidon, Ashbourne, £2,921 (work to commence January).

Ashton-under-Lyne, Lancs.—Following private street works, for B.C.: Langham Street and Brasseley Street—Slater Brothers, Rochdale, £1,593 and £871; Alexandra Road and Atlas Street—Metallic Roadways, Ltd., Hanley, £2,068 and £4,048 respectively (recommended, subject to Ministry approval).

Barking, Essex.—Tarmac paving work at Roding Junior and St. Teresa R.C. Primary Schools, for B.C.—Home Counties Con-

tracting Co., Ltd., 24 Hertford Road, London, N.9, £2,164 (recommended).

Bideford, Devon.—Extension of Stucley Road, for B.C.—W. E. J. Wood and Co., Ltd., Strand, Bideford, £4,279 (recommended).

Birmingham.—Following for City Council: Road surfacing, supplying, laying and maintaining asphalt, Chester Road (part) Castle Bromwich and Watford Road, Cotteridge—Road Surfacing Co., Ltd., 241 Hagley Road, Edgbaston, Birmingham, 16; Inner Ring Road scheme, section 2, Shadwell Street to Upper Priory—Limmer and Trinidad Lake Asphalt Co., Ltd., Trinidad House, Coventry Street, Birmingham, 5; New Road (part) and Sandy Lane—Highways Construction, Ltd., 2 Hartopp Road, Birmingham, 8; Oxhill Road, Stonehouse Hill and Stonehouse Lane—Tarmac Roadstone, Ltd., Blue Rock Quarries, Oldbury; Trescott Road, Northfield—Constable, Hart and Co., Ltd., Peartree Lane, Dudley.

Supply of prestressed concrete units for Inner Ring Road scheme, section 1, part 3—Hoveringham Concrete Co., Ltd., Hoveringham, Nottingham; providing and fabricating stone required, Inner Ring Road, Lord Nelson's Statue, Bull Ring—Bath and Portland Stone Firms, Ltd., 6 Kingston Buildings, Bath; resurfacing New Town Row, Hockley Brook improvements—Neuchatel Asphalt Co., Ltd., Birmingham; strengthening and surfacing diversity routes, Six Ways, Aston, underpass scheme—Tarmac Roadstone, Ltd.

Bootle, Lancs.—Resurfacing of Orrell Lane, Park Lane, Netherton, and lengths of Park Lane West for B.C.—Trinidad Lake Asphalt Co., Ltd., India Buildings, Water Street, Liverpool 2 (extension of contract). Estimated cost £3,900.

Bradford, Yorks.—Widening and re-alignment of Fairfield Avenue from Boltby Lane to City boundary at Blackshaw Beck, for City Council—Direct Labour (recommended). Estimated cost £20,240.

Caterham and Warlingham, Surrey.—Reconstruction of Coulsdon Road, for U.D.C.—Allmacadams, Ltd., Balfour House, 119-125 Finsbury Pavement, London, E.C.2, £19,792 (subject to Ministry approval); Mears Bros. (Contractors), Ltd., £21,269; Sparkes (Construction), Ltd., £22,635; Waywarden, Ltd., £24,670; Farnborough Civil Engineering Construction Co., £27,910.

Chislehurst and Sidcup, Kent.—Construction of car park at Burlington Parade, High Street, Chislehurst, and improvements to Sidcup Hill/High Street, Sidcup, for U.D.C. W. B. Farrow, engineer and surveyor—Allmacadams, Ltd., 332 Brighton Road, South Croydon, £13,592 and Fordyce Bros., Ltd., Cray Avenue, Orpington, £5,740 respectively. Work to commence Jan.

Eston, Yorks.—Construction of hardstandings for five garage sites at Church Lane housing estate, for U.D.C. M. C. Harrison, engineer and surveyor—Tees-side Concrete and Asphalt Construction Co., Ltd., 1a Darlington Street, Thornaby-on-Tees, Stockton-on-Tees, Co. Durham, £3,844 (accepted); Resmat Asphalt, Ltd., £3,992; Tarmac Roadstone, Ltd., £3,881.

Islington.—Reconstruction of kerbs and repaving of footpaths with asphalt, for B.C.—Amalgamated Asphalt Companies, Ltd., Asphaltic House, Palace Street, London, S.W.1, £39,026 (recommended).

Malden and Coombe, Surrey.—Construction of Worcester Park railway bridge, for B.C.—Caffin and Co., Ltd., 25 Craven Street, London, W.C.2, £123,892 (recommended, subject to Ministry approval).

Margate, Kent.—Final surfacing of Canterbury Road, stage one, for B.C.—Chittenden and Simmons, Ltd., Ditton Place, Larkfield, Maidstone.

Newcastle upon Tyne.—Improvements to Armstrong Bridge and Benton Bank, for City Council—Direct Labour, £8,218.

Southampton.—Making up of Wakefield Road (part) for B.C.—D. H. Shepperd, 113 Canbury Road, Eastleigh, £6,404 (recommended, subject to Ministry approval).

Staffordshire.—Making-up of Greenfield Road (part), off Overhill Road, Stafford (length 93 yd.) for C.C.—Roy Beech (Contractors), Ltd., North Street, Stoke-on-Trent, Staffs.

Stoke Newington.—Following, for B.C.: Widening of Church Street by Clissold Park—Direct Labour, £4,000; footway repaving for 1961-62—Coombe Side Construction Co., Ltd., 30 Sheep Lane, London, E.1, £11,526 (both recommended).

Walsall, Staffs.—Construction of roads and sewers and improvement of street lighting for the redevelopment of Rutland Street allotments site, for B.C.—Direct Labour (recommended, subject to Ministry approval). Estimated cost £6,515.

Willesden, Middx.—Following for B.C.: Cold asphalt surfacing works—W. F. Rees, Ltd.,



Glover wire ropes bear the weight of 120 years experience

You can rely on the job-proved durability of Glover high-quality Steel Wire Ropes. **DEPENDABILITY, STRENGTH and EXPERIENCE** are built into every one of the many types of Wire Rope made by Glovers, to meet the diversified needs of modern industry. Available in every size, in every construction, for every purpose. Matching performance with application—Glovers produce a rope for every requirement but specialise in Steel Wire Ropes for Aerial Ropeways, Cableways, Chair Lifts, Conveyors, Drag Scrapers, etc.

GLOVER BROTHERS (MOSSLEY) LTD.

Mossley, Ashton-u-Lyne, Lancashire. Grams: "Ropes", Mossley,

For **IMMEDIATE** attention 'phone **MOSSLEY 444**
EALING 5250



MEMBERS OF THE GLOVER GROUP: British Ropeway Engineering Co. Ltd., Drag Scraper & Conveyor Co. Ltd., Glover Brothers (Mossley) Ltd., Wm. Jas. Glover & Co. Ltd., Ropeways Ltd.

54 Victoria Street, London, S.W.1, £2,745 (recommended).

Reconstruction of Acton Lane between Mordaunt Road and Station Road—Frain Bros. Ltd., Cable House, 1 Lyonsdown Road, New Barnet, Herts., £29,181; Station Road from Tubbs Road to the Jubilee Clock—Limmer and Trinidad Lake Asphalt Co. Ltd., Trinidad Lake House, Vauxhall Bridge Road, London, S.W.1, £10,291; construction of a short length of retaining wall along the frontage of 33/35 Salusbury Road in connection with the reconstruction of Queen's Park Bridge—Donovan and Denny, Ltd., £1,677 (recommended, subject to Ministry approval).

SEWERAGE, SEWAGE AND REFUSE DISPOSAL

Aldeburgh, Suffolk.—Laying of 9in. and 6in. sewers, together with manholes and incidental works, at Linden Close and Linden Road, for B.C. W. Hodgson, borough surveyor—J. Nunn and Sons, of Ipswich, Ltd., 1 Palmerston Road, Ipswich, £5,814.

Ballymena, Antrim.—Main drainage, contract 3, at Broughshane Road, for B.C. John Taylor and Sons, consulting engineers, Artillery House, Artillery Row, London, S.W.1—Ballymena Construction Co., Ltd., Ballymena, £9,061 (accepted, subject to Ministry approval); Ramsey Bros., Ltd., £9,891. Work commencing Jan.

Beverley, Yorks.—Following for R.D.C. Contract 457, sewerage works, Dalton Holme, approximately 430 lin. yd. 4in. and 6in. sewers, manholes and concrete humus tank; contract 470 sewerage works, Figham Road, Woodmansey, approximately 360 lin. yd. of 4in. and 6in. sewers, small brick pump house and concrete well. G. Palfreyman, engineer and surveyor, 22 Lairgate, Beverley—Sangwin, Ltd., Dansom Lane, Hull. Work commenced Dec.

Bradford, Yorks.—Replacement of sewer extending from Nelson Street to Bridge Street, and construction of a surface water sewer in the section of Canal Road between Bolton Lane and Oliver's Lock, for City Council—Direct Labour (recommended). Estimated cost £70,380 and £4,500 respectively.

Chester.—Supply of switchgear equipment required in connection with the extension of the Sealand Road sewage disposal works,

for City Council—Brookhurst Igranic, Ltd., Northgate Works, Chester, £3,990 (recommended).

Gosport, Hants.—Piping of moat at Palmers-ton Way, for B.C.—Holdyne, Ltd., Winchester, £4,778 (recommended, subject to Ministry approval).

Guildford, Surrey.—Construction of a surface water sewer to alleviate flooding in Box-grove Road, for B.C.—R. H. McCulloch and Co., Ltd., 1 South Street, Godalming, £1,165 (recommended).

Guisborough, Yorks.—Sewerage and sewage schemes at Mount Pleasant and Upleatham, for the U.D.C. D. H. Moore, consulting engineer, 12 Valley Bridge Parade, Scarborough—Messrs. B.A.C.E. (Redcar), Ltd., Redcar.

Ilford, Essex.—Construction of the Roding Valley mid-level soil sewer, stage II, for B.C.—Howard Farrow, Ltd., Highfield Road, Golders Green, London, N.W.11, £113,238 (recommended, subject to Ministry approval).

Lincoln.—Supply of pumps for the new pumping station at Black Horse Farm, Blankney Dales, for the Witham First District Internal Drainage Board—Gwynnes (Pumps), Ltd., Chancellor's Road, London, W.6, £16,085 (provisionally accepted).

Lowestoft, Suffolk.—Construction of soil sewers in Bishops Walk (part), Harrington Avenue, Middle Way (part) and Squires Walk, Gunton estate, for B.C.—Harpers Transport, Ltd., Oulton Broad, £6,954 (recommended, subject to Ministry approval).

Malton, Yorks.—Sewerage and sewage disposal scheme for the village of Terrington, for R.D.C.: (a) Sewage disposal work; (b) 2,283 lin. yd. 6in. and 9in. diameter sewers with manholes and other ancillary work; (c) 742 lin. yd. 4in. and 6in. diameter house connections. D. H. Moor, Council's consulting engineer, 12 Valley Bridge Parade, Scarborough—Ridings Construction Co., Ltd., York, £23,727 (accepted); Talson Construction, Ltd., £24,157; Squire W. Swift, Ltd., £24,745; Sangwin, Ltd., £27,206. Work commencing Jan. 1.

Newcastle-under-Lyme, Staffs.—Ashley sewerage and sewage disposal, contract 2, for R.D.C. comprising the construction of glazed stoneware and spun-iron pipe sewers with manholes and sewage disposal works. A. H. S. Waters and Partners, consulting engineers, 25 Temple Row, Birmingham 2—F. H. M. Contractors, Ltd., Brook-

Lane, Newcastle-under-Lyme, £49,115. Work to commence Feb.

North Lonsdale, Lancs.—Outgate sewerage and sewage disposal scheme, for R.D.C. H. Whittaker, engineer and surveyor—T. Waldren, 197 Blackpool Old Road, Poulton-le-Fylde, £4,016. Work commencing Dec.

Pewsey, Wilts.—Construction at North Tid-worth of approximately 400 lin. yd. of 6in. concrete sewer, 30 lin. yd. of 6in. spun iron sewer, concrete tube manholes and 4in. glazed stoneware house connections, for R.D.C. E. H. E. Hall, Engineer—James and Crockerell, Ltd., Durrington, Salisbury, £4,728 (accepted); A. J. Dunning and Sons (Weyhill), Ltd., £5,051; Bridgewater Bros., £5,256; W. E. Chivers and Sons, Ltd., £5,785. Work commencing Dec.

Ripley, Derbys.—Laying approximately 414yd. of 12in. diameter concrete tube sewer, with manholes, at Derby Road, for U.D.C. H. Hillier, surveyor—G. McNamara (Derby), Ltd., 85 Field Lane, Alveston, £5,002.

Swainsthorpe, Norfolk.—Supply and erection of sewage pump for improvements to the sewage disposal plant at The Vale Hospital, for East Anglian Regional Hospital Board—Ames, Crosta, Mills and Co., Ltd., Wolver-hamp-ton, £513 (recommended).

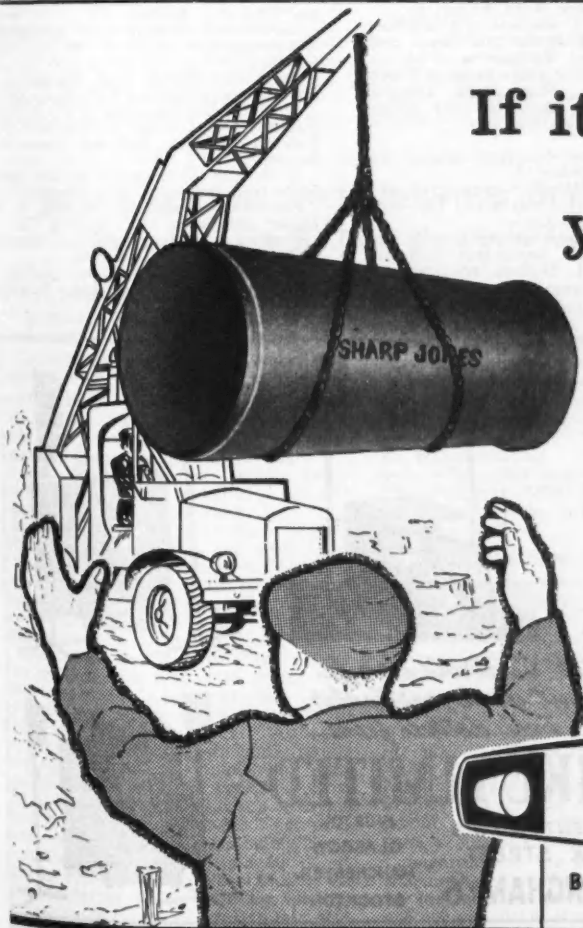
STREET LIGHTING

Alfreton, Derbys.—Street lighting, Riddings, Golden Valley and Somercotes, for U.D.C. Comprising the supply and erection of 179 group A columns, complete with lanterns and gear—Abacus Municipal, Ltd., Sutton-in-Ashfield, Notts.

Ashton-under-Lyne, Lancs.—Improvements to street lighting at Darnton Road, for B.C.—Abacus Municipal, Ltd., Sutton-in-Ashfield, Notts., £1,805 (recommended, subject to Ministry approval).

Brentford and Chiswick, Middx.—Supply and erection of lighting units in Chiswick High Road, for B.C.—Atlas Lighting, Ltd., Upper St. Martins Lane, London, W.C.2, £4,280 (recommended).

Ellesmere Port, Ches.—Provision and erection of 38 group A and 146 group B street lamps, and the removal of nine group B and 109 gas street lamps, for B.C. Contract 314—Concrete Utilities, Ltd., 11 Albert Square, Manchester 2, £5,409 (accepted); A.E.I. Lamp and Lighting Co., Ltd., £5,448; Revco Electric Co., Ltd., £5,494; Eleco, Ltd., £5,586.



If it's a pipe you want
be it large, medium or small
your requirements
will be met!

For more than eighty years Sharp Jones & Co. Ltd., have been manufacturing Concrete Pipes. Still first in the field (and road) we can give you a Spun Pipe that will meet your need in every respect. Strength and durability are the keywords of these pipes ensuring a lasting, reliable and trouble-free service. For modern drainage schemes specify Sharp Jones' Concrete Pipes and be really satisfied.

• Write now for full details and technical information.

SHARP JONES & CO. LTD.

BOURNE VALLEY POTTERY, PARKSTONE, POOLE, DORSET.
Tel: Westbourne 61226-7-8

Contract 315—Eleco, Ltd., Sphere Works, St. Albans, Herts., £2,853 (accepted); Concrete Utilities, Ltd., £2,923; A.E.I. Lamp and Lighting Co., Ltd., £2,957; Abacus Municipal, Ltd., £2,964.

Kirkby-in-Ashfield, Notts.—Street lighting—supply and erection of 22 group A columns complete with lanterns and gear, for U.D.C.—Abacus Municipal, Ltd., Sutton-in-Ashfield, Notts.

Middlesbrough, Yorks.—Supply of following for B.C.: Seven hundred 80-watt mercury street lanterns—Revo Electric Co., Tipton, Staffs., £6 15s. 9d. each; 700 aluminium columns—Metal Developments, Ltd., Darlington, £11 10s. each.

Peterborough.—Provision of groups A and B street lighting units under 1960/61 contract for City Council—Abacus Municipal, Ltd., Sutton-in-Ashfield, Notts., £282,553 (subject to Ministry approval).

GOVERNMENT CONTRACTS

Air Ministry.—Contracts to the value of £4,000 or over for the week ended Nov. 17.

Building work: Cortesmore, Rutland—Bernard Pumfrey, Ltd., Gainsborough, Lincs.; Boscombe Down, Wilts.—Campbell and McGill, Ltd., Winchester, Hants.; Upavon, Wilts.—W. E. Chivers and Sons, Ltd., Devizes, Wilts.

Artificers work: Brize Norton (Oxford)—F. R. Hipperson, Dagenham, Essex.

Painting work: Quedgeley, Birdlip and Winstone (Gloucestershire)—Ian Williams and Co., Ltd., Cardiff.

Preparation and maintenance of land: Manston (Kent) and Bovingdon (Herts.), etc.—Turfsoil, Ltd., Greenwich, London, S.E.10.

Metropolitan Police.—Recent contracts placed include:

Erection of a police section house, 179 and 185 Dartmouth Road, Sydenham, S.E.26—Robert Hart and Sons, Ltd., £245,597.

Construction of gymnasium and classroom block at cadet training centre, Grosvenor Hall Estate, Ashford, Kent—A. A. Anderson, Ltd., £127,396.

Alterations and internal re-decorations, Arbour Square Police Station and Thames Magistrates Court, East Arbour Street, E.1—Geo. Barker (Builders), Ltd., £5,872.

Ministry of Finance, Northern Ireland.—Contracts exceeding £250 in value placed during the period Nov. 6 to Nov. 17, inclusive:

Electrical installation in Forester's House: Ministry of Agriculture Forestry Centre, Ely Lodge, County Fermanagh—S. S. Reddock, Esq., 3 Orchard Terrace, Enniskillen.

Supply, etc., oil burning equipment: Ministry of Agriculture, Loughry Agricultural College, Cookstown, County Tyrone—Musgrave and Co., Ltd., St. Ann's Works, Belfast, 5.

Conversion of calf houses into poultry building: Ministry of Agriculture, Loughry Agricultural College, Cookstown, County Tyrone—Benson Bros. (Cookstown), Ltd., Cookstown, County Tyrone.

Periodical—fluorescent lamp fittings: Government Establishments in N.I.—Philips Electrical, Ltd., 40 Queen Street, Belfast, 1.

Electrical installation: Customs and Excise, Killeen—Wm. J. Gamble and Sons, Ltd., 78/82 Cromac Street, Belfast, 2.

Domestic Services, ventilation, etc.: R.U.C. Enniskillen—J. Johnston and Sons, 14 Perry Street, Dungannon.

Supply, etc., 1,000 chairs tubular steel: Ministry of Finance Stores, 18/24 Tomb Street, Belfast, 1—Neeta, Ltd., Progress Road, Eastwood, Southend-on-Sea.

Internal decoration: National Assistance Board, Londonderry—W. A. Dickie and Son, 6 Great James Street, Londonderry.

Internal cleaning and painting: Ministry of Labour and National Insurance, Kitchen Hill, Lurgan—A. Hollywood and Son, 3 and 3a Carnegie Street, Lurgan.

Ministry of Works.—Contracts placed for week ended Nov. 11.

Aberdeenshire: Windmill Street, Peterhead—erection of a telephone exchange and a telephone engineering centre—William G. Cooper, building contractor, 3 Ugie Street, Peterhead.

Hampshire: National Gas Turbine Establishment, Pyestock—steam and condense pipework and valves and cooling water services—Stewarts and Lloyds, Ltd., Broad Street Chambers, Birmingham 1, Warwickshire; Home Office, Bramshill House, Hartley Wintney—new theatre and lecture room—Pool and Sons, Hartley Wintney.

Lanarkshire: Thornliebank, Glasgow—erection of the Southern District post office—William S. Gordon and Co., Ltd., 2 Royal Crescent, Glasgow, C.3; Kirk O'Shotts—extension to the post office radio station—Robert Paterson and Sons, Ltd., Milton Street, Airdrie.

Lancashire: Ministry of Pensions and National Insurance, Warbreck Hill, Blackpool—repair and re-surface roads, paths—F. Parkinson, Ltd., Mowbray Drive, Blackpool.

London: British Museum, W.C.—erection of water mains—Ellis (Kensington), Ltd., Kendrick Place, London, S.W.7; Branch Post Office, Ludgate Circus, E.C.4—re-modelling of public areas, offices, etc.—H. N. Barnes, Ltd., 40 Peterborough Road, S.W.6.

Midlothian: Royal Botanic Garden, Edinburgh—renewal of the water main—Hepburn Bros. (plumbers and electricians), Ltd., 84-88 Comiston Road, Edinburgh.

Sussex: Polegate—erection of a telephone exchange—Cr. Bainbridge and Sons, Ltd., 39 Terminus Road, Eastbourne.

Warwickshire: Post Office Supplies Depot, Fordrough Lane, Birmingham: concrete hardstanding and gatehouses—Sir Alfred McAlpine, 49 Waterloo Road, Wolverhampton.

Ministry of Works.—Contracts placed for week ended November 18:

Aberdeenshire: Huntly—erection of telephone exchange—D. Forsyth and Co., Ltd., 7 Reidhaven Street, Elgin.

Derbyshire: Chesterfield—erection of sorting office and Accountant General's Department—M. J. Gleeson (Contractors), Ltd., Haredon House, London Road, North Cheam, Surrey.

Durham: Anthony Street, Stanley—erection of automatic telephone exchange—Henry F. Mole and Co., Ltd., Broadwood View, Chester-le-Street.

Hampshire: Ministry of Pensions and National Insurance, 2 Pickford Street, Aldershot—install new passenger lift—Keighley Lifts, Ltd., Dryart Works, Keighley, Yorks.

Lancashire: Post Office Savings Bank, Hayhouses Lane, Lytham St. Anne—repairs to roads—Fox Bros. (Blackpool), Ltd., 44 Ashfield Road, Blackpool.

London: First Avenue House, High Holborn, W.C.1—decoration work—South London Decorators, Ltd., Wandie Way, Willow Lane, Mitcham, Surrey; Post Office, 25 Southampton Buildings, W.C.1—internal decorations—South London Decorators, Ltd., Wandie Way, Willow Lane, Mitcham, Surrey.

Midsex: Post Office and Sorting Office, West Drayton—alterations and additions—Buckingham and Sons, Ltd., 41 Vivian Avenue, Hendon, N.W.4.

Midlothian: Customs and Waterguard Offices, Albert Dock, Leith—extension—Hepburn Bros., Ltd., Westfield Road, Edinburgh, 11.

Oxfordshire: Hydraulics Research Station, Howbery Park—electric service panels—Brush Electrical Engineering Co., Ltd., Loughborough, Leics.

Stirlingshire: Head Post Office, Stirling—reconstruction—Jas. Crawford and Sons, Ltd., 14 Woodside Terrace, Glasgow, C.1.

Sussex: Ministry of Transport, Chichester—erection of workshop and garage—Francis J. Privett, Ltd., Copnor Road, Portsmouth, Hants.

Post Office.—Contracts for duct laying, etc. works to the value of £4,000 and over placed during the week ended November 18.

Alec Astbury (Builders and Contractors), Ltd., Pen-y-Ffordd, Chester; Christie and Co. (Contractors), Ltd., Raemoir Road, Banochory, Kincardineshire; The McNicholls Construction Co., Ltd., 31A Cricklewood Broadway, London, N.W.2; William Press and Son, Ltd., 22 Queen Anne's Gate, Westminster, London, S.W.1; P. Roche and Co., The Laurels, Winchester, Nantylly Brynmawr, Breconshire; Sangwin, Ltd., Dansom Lane, Hull, Yorkshire.

War Department.—Contracts placed for the week ended Nov. 10.

Co. Antrim (Lisburn): building—Francis and Co., Ltd., Belfast.

Breconshire (Sennybridge): painting and decorating—Ian Williams and Co., Ltd., Cardiff.

Derbyshire (Derby area): miscellaneous—Harris Bros. (Marehay), Ltd., Ripley, Derby.

London: miscellaneous—C.A.S. (Contractors), Ltd., London; London (Woolwich) building—Holliday, Hall and Stinson, Ltd., London, S.W.12.

Midlothian (Edinburgh): building—James Miller and Partners, Ltd., Ripley, Derby.

Perthshire (Dunblane): building—G. N. Haden and Sons, Ltd., Glasgow, C.2.

Staffordshire (Marchington): miscellaneous—O'Dair Bros., Ltd., Uttoxeter.

Yorkshire (Catterick Camp): roadwork—F. Shepherd and Son, Ltd., Richmond, Yorks.



'GEOPi' Traffic Controls can be designed to suit your particular problem. Full details from

GEORGE PIKE LIMITED

<p>BELFAST CARDIFF LONDON PETERBOROUGH</p>	<p>EQUIPMENT WORKS ALMA STREET BIRMINGHAM-6</p>	<p>BRISTOL GLASGOW MANCHESTER STOCKTON</p>
--	--	--

"THE NEW CHICAGO PLAN" All Parties Endorse Separate Bids

THE reactions of owners, architects, consulting engineers and contractors to the Chicago Plan for separate bids (see *The Contract Journal*, March 23, 1961), were immediate and overwhelming. According to a new brochure countless letters were received attesting to the validity of the statements made relative to the seriousness of bid-shopping and peddling and expressing enthusiastic approval of the solution proposed namely, separate bids.

Thus inspired and encouraged, the Mechanical Speciality Contractors Association of Chicago who conceived the Chicago Plan began a series of joint industry committee meetings with their counterparts representing architects, consulting engineers and general contractors. This joint industry committee, using the original Chicago Plan as a nucleus, developed and expanded, step by step procedure which is now presented as the new Chicago Plan for Separate Bids. This plan is set out in a new brochure presented and endorsed by the Chicago chapters or associations of architects, consulting engineers, general contractors and mechanical speciality contractors.

"Optional" Feature Deleted

The taking of separate bids is the very heart of both the original and the new Chicago Plan. But the "optional" feature of contract assignment which appeared in the original Chicago Plan has been deleted. For the joint industry committee unanimously recognised the general contractor's traditional role of prime contractor on all normal building sites with full responsibility for supervision and co-ordination. It is therefore recommended that mechanical speciality contracts be assigned to the general contractor for execution after separate bids have been taken and contracts have been awarded. The new plan states unequivocally that the responsibility for supervision and co-ordination cannot be divided. In addition the architect and engineer both agree that

co-ordination and supervision are functions of the builder not the designer. The mechanical speciality contractor on the other hand has neither the experience nor the desire to accept responsibility for more than his portion of the work.

The new plan then sets out a procedure for all building construction. It is emphasised that in order to take separate bids it is necessary that separate specifications be prepared and it is pointed out that this work has definite intrinsic advantages. It provides a means whereby the architect and engineer can more readily check the thoroughness of their specifications and also serves to ensure the completeness of each contractor's bid since every item on which a particular contractor is required to bid will be in one exclusive set of specifications and his area of responsibility will thus be clearly defined.

The new plan states that generally speaking the general construction will represent approximately one half of the cost and the mechanical speciality contracts will represent the remaining half. In America the general contractors bid contains an estimate for the cost of supervising and co-ordinating the work of the mechanical speciality contractors. It is recognised that this cost will be in proportion to the magnitude of the mechanical speciality work but it is believed that an estimated percentage should be sufficiently accurate under normal circumstances and no particular problem will arise as long as the final accounts are reasonably close to the estimate. In the event of a wide discrepancy between the architect's initial estimate and the actual mechanical speciality contract amounts, the item would lend itself to negotiation, says the new plan.

Not a "Broker"

The joint industry committee expresses the opinion that a general contractor should be a "builder" and not a "broker." The committee believes therefore that the general contractor should be asked to certify that "a reasonable and controlling

portion" of the construction will be done by his own labour force.

The new plan advocates selective tendering and a strict procedure to assure prompt payments by the general contractor to all sub-contractors while at the same time protecting the interests of the owner. It is to be noted that second and subsequent requests for interim payment submitted to the owner through the general contractor by each sub-contractor must be accompanied by "partial waivers of lien" from the general contractor showing that sub-contractors have received the immediately preceding payment.

Single Contract System

Referring to the single contract system the new plan states that the bold fact is simply that when bids are shopped or peddled the owner pays full price for a building which is built on the basis of cut-price contracts. In developing and endorsing the new Chicago Plan for Separate Bids the joint industry committee recognises the need for concerted action by the entire building construction industry. It recognises also the failure of codes of ethics and pious platitudes as deterrents to bid-shopping and bid-peddling. In the concluding paragraph of the new plan the joint industry committee firmly recognises that they must continually strive to build better buildings at the lowest possible cost and at a legitimate profit. It is the committee's conviction that the new Chicago Plan for Separate Bids can and will best serve these three related interests.

£2½M. LEICESTER DEVELOPMENT SCRAPPED

The proposal to build an 11-storey hotel and 20-storey office block at Charles Street, Leicester, announced in July, has been abandoned. In a statement made public last week, the promoters, Grosvenor House (Park Lane), Ltd., say that the decision to scrap the £2½m. scheme has been taken "in view of the present economic climate." The architects for the project were R. D. Russell and Partners, 28 Little Russell Street, London, W.C.1.

£130,000 FLYOVER PLANNED

Lancashire County Highways and Bridges Committee have agreed to the provision of a flyover access from the Ford factory now under construction at Halewood, so as to prevent disruption of traffic on the main road. The company will bear 75 per cent. of the total estimated cost of £130,000, and the County Council, 25 per cent.

PREFABRICATED BUILDING CONTRACTS

I. Clifton and Sons, Ltd., Wembley, were awarded the following contracts during week ended November 18, for prefabricated buildings: Nuclear Power Group—Dungeness, £1,720; Trinidad Lake Asphalt—Liverpool, £2,267; Cubitt Nichols—Pevensey Bay, £2,863; Wm. Abbott—Ashford, £1,167; Borough of Luton—Luton Airport, £1,044; Allnatt (London), Ltd.—Wembley, £370; Kast Construction—Park Royal, £1,905.

£A3M. QUEENSLAND PORT IMPROVEMENT

Major improvements are to be made to the key Queensland port of Townsville, at a cost of £A3 million. These will include a new sea wall, a new pier, the reconstruction of existing walls and the reclamation of about 130 acres of swamp land. Townsville is the seaport terminal of the Mt. Isa railway, which is being rebuilt to handle the growing production of lead, zinc and copper from the Mt. Isa mines.

BONUS SCHEME INCREASES PRODUCTIVITY

More Work To Be Done By Direct Labour

EVEN better results than had been forecast have been achieved by introduction of a bonus scheme, say Northamptonshire County Roads and Bridges Committee in a special report on work study.

In two highway divisions during six weeks ending June 24 last productivity increased by 56 per cent. There was a 25 per cent. decrease in unit labour costs and the scheme achieved about a £32,300 reduction in annual labour cost.

Bonus payments to the roadmen during this period averaged 30s. per week—but it is expected that as the men become more accustomed to the scheme and to improved methods of working the amount will be between £2 and £3 per week with consequently increased savings to the Council.

Giving examples of how these results were achieved, the committee report that the average weekly mileage of roads swept by mechanical sweepers rose from 117 to 152, an increase of 30 per cent. Although the size of the gangs was reduced from 4 to 3 men, the average number of "cats eyes" laid and fixed each week rose from 200 to 320. The average cost of laying white lines was reduced to 9.3d. per yard, compared with 11.5d. per yard before bonus payments were introduced and 10.5d. per yard by contract. Last year £4,273 was spent on laying white lines by contract whereas in the future all work in this category will be carried out by direct labour.

Say the committee: "It is naturally more difficult to assess what savings are being made on improvements works since no two schemes are exactly alike. It so happens, however, that two improvements, involving a similar volume of work have recently been carried out by the same gang on the Cottingham-Rockingham road (B.670), one before and one after the introduction of the bonus scheme. The second scheme took only 2,300 man-hours to complete compared with 5,000 for the first, representing an increase in productivity of over 100 per cent."

Principal Object

The committee emphasise that so far the principal object of the scheme has been to increase output rather than to effect large monetary savings. Actual savings are, however, now being obtained, partly by a gradual reduction in the number of roadmen as the older men retire and partly by increasing the proportion of large schemes carried out by direct labour for example, the scheme for the reconstruction of the Birmingham-Ipswich road (A.45) near Knuston Lodge, which is estimated to cost £75,000 will now be undertaken by direct labour instead of being put out to contract as was originally intended.

According to the committee the bonus scheme has been extremely well received by the men, so much so that those who are not yet within it are pressing to be included as quickly as possible.

Talking of Safety

by
"DRAGEE"

WHENEVER I visit one of our sites in the Manchester area, I make a point of visiting my old friend Roland. He and his family live in a nice old brick house on the Cheshire border. They have a small mongrel dog. They call it Samuel for some reason which made me laugh when I heard it but like most of the jokes I keep for my friends, this one got away.

Samuel has no personal connection with my work, but he exhibits certain quirks of behaviour which remind me of persons I have actually come across. I have a feeling that as a subject for serious study, Samuel could teach me quite a lot about psychoneurosis or whatever it is that compels a sane human being to start demolishing a scaffold by loosening the clips of the ledger upon which he is sitting. Mad? Yes, of course—gibbering, crazy mad! And yet it has happened: to an otherwise plain, sensible, diligent worker, whose mind was fleetingly away from it all.

I was telling you about Samuel.

Normally a bright-eyed, healthy specimen of doghood, Samuel is also subject to moments of intellectual confusion, and on these occasions he is apt to become what is known as "accident prone." This happens, for instance, when he develops a terrible Freudian infatuation for an inanimate object, and immediately loses all sense of caution. Last year, Roland and the family visited some friends who also had an old house, with no pets, but with mice. They kept some baited traps in odd corners, and of course Samuel found one of them and immediately fell in love with it. Knowing Samuel's peculiar nature, I imagine he would look at it tenderly for a while, and then try a closer inspection. What we heard, eventually, was Samuel's howl of rage and astonishment when the trap bit him. When we

"Dragee," who is a practising safety engineer, would welcome subjects for discussion in this column. All names of persons mentioned in these discussions are entirely fictitious. Questions of law are expressed as the author's personal opinions and are not claimed to be authoritative.—EDITOR.

found him, there was an expression of betrayal in his great big disillusioned eyes.

Samuel, of course, has no real counterpart in adult human life, although it is said that people's love for money will lead them to do some very silly things. The age of bonus and incentive payment has shown plenty of examples. I know of no antidote to this kind of thing, except a carefully worded agreement between both parties which makes it perfectly plain to all concerned that incentive working will only continue so long as safe practice is strictly observed.

By careful observation I have discerned another trait in Samuel's make-up. He hates innovations and is highly suspicious of anything which is intended solely for his own comfort or amusement. Routine disturbances like the condition-powder and the weekend bath do not worry him unduly. A new collar made of blue leather and twinkling with brass studs which Roland bought for him as a Christmas present was received with ill-concealed loathing. He couldn't have been more put out if it had been a hangman's noose. It now shares a large tin box with an assortment of rubber bones, shining new leather leads, other fancy collars, and a china bowl with DOG printed on it clearly so that its ownership could not be disputed by the cat—all shop-new, angrily rejected at sight by Samuel.

It reminded me of the time we introduced a new safety rule on one job. Its purpose was clear and it entailed no additional effort on anyone's part, so that success seemed assured. But no: I had not reckoned with the caution which confronts any seemingly altruistic approach by the site management. "Where is the catch?" they asked. The new rule appeared to act entirely in the men's own favour, and therefore there must be something wrong somewhere. What, then, was behind it? It wasn't legally compulsory. . . . Eventually a feasible explanation was discovered. By adopting this new method, the job could be speeded up. More output for the same money! Scandalous! The new system was dismissed with scorn.

If I have learned anything at all about

attitudes to safety, it is this: that one must take human nature as one finds it and not as, in one's own opinion, it ought to be. If we start by recognising that the weaknesses are there, and that the majority of industrial accidents come about as the result, we will know where we are going and, what is more important, we will know who is going with us.

Samuel, poor soul, is fated to end up in the most wildly improbably and unheroic circumstances. A few weeks ago he dug up a long-lost briar pipe belonging to Roland, and carried it into the house with half of the stem inside his mouth. The effect was exceedingly comical, but completely and consistently Samuel. It was removed gently but firmly before it could be chewed up and swallowed, and so tactfully that Samuel hardly noticed the loss. I thought then that Roland had the makings of a good safety officer.

NUCLEAR POWER STATION FOR BRAZIL

The Brazilian Government have issued an international call for applications to erect a nuclear power station in the central-southern region of the country. When these applications have been received tenders, on a fixed price basis, will be invited from a selected list.

Power will be supplied by the station to the state of Guanabara. The electrical output will be 300-MW., to be met through the use of a single gas-cooled reactor unit employing natural uranium as fuel and graphite as a moderator. The sole contractor will be responsible for design work, construction and commissioning of the station.

The invitation for applications is issued by the Brazilian Government, through Comissão Nacional de Energia Nuclear, CNEN, Av. Almirante Barroso, 81-2 and, Rio de Janeiro—Estado da Guanabara, Brazil.

BOOKS RECEIVED

Dictionary of Painting and Decorating Trade Terms, compiled by J. H. Goodier. Publishers, The Sutherland Publishing Co., Ltd., 30 Princes Street, Southampton, Lancs. Price 19s. 6d.

A summary of the salient points relating to each of the terms included in the dictionary has been given by the author.

Rock Mechanics, by H. R. Reynolds, A.M.I.C.E. Publishers, Crosby Lockwood and Son, Ltd., 26 Old Brompton Road, London, S.W.7. Price 21s.

This book is the third in a series by the author on the engineering properties of soils and rocks. Both the theory and practice of this developing subject are covered and designed to meet the needs of students and practising engineers.

Foundation Design Simply Explained, by John Faber and Frank Mead. Publishers, Oxford University Press, Amen House, Warwick Square, London, E.C.4. Price 15s.

This book endeavours to set down simply the problems which normally arise in designing foundations, and the various ways in which these problems can be tackled. Numerous worked examples are given.

Moment Distribution, by Edgar Lightfoot. Publishers, E. and F. N. Spon, Ltd. Price 67s. 6d. net.

Many of the mathematical procedures hitherto employed for using the moment distribution method for the analysis of rigid-jointed structures can, with no loss of accuracy and with a considerable saving in time, be shortened and simplified. The basic theory of moment distribution is first recapitulated. Then, with the help of worked examples and specially prepared tables and line drawings, the application of both basic and newly-developed theory to many different types of structure is clearly demonstrated.



"And who's been messing about around the fixtures and fittings?"

PRESIDENT REPORTS ON PROGRESS AND AIMS OF MODULAR MOVEMENT

"DURING the past year the modular movement has steadily been gathering momentum," stated Lord Bossom, LL.D., F.R.I.B.A., president of the Modular Society, at a luncheon given in London last week by the Society.

Explaining their aims, he said that other industries had brought their cost down by virtue of the three big S's—Standardising, Simplification and Specialisation. Building, because of the necessary variety of building sites and building types, had not yet been able to follow suit. The greatest difficulty had been the standardisation of the sizes of things that went into building, so that they could be put together easily on the site. Individual types of component, such as doors or windows, had long been made to standard sizes, but in different ranges which did not help in putting them together into a building.

Common Denominator

"This is where the module comes into play," continued Lord Bossom. "It offers a common denominator. When all components are correctly sized in multiples of the 4in. module, and buildings are designed to the same series of dimensions, everything can go together without waste and long production runs of modular components can reduce their cost.

"To give a familiar example: if your room is 12ft. wide, you can buy two 6ft. widths of linoleum and cover the floor without waste; but if it is 12ft. 9in. wide you have to buy another 6ft. width and waste 5ft. 3in. of it.

"The answer is not, of course, to tell architects that all rooms must be 6ft., 12ft., 18ft. and so on in width: there are other factors than linoleum in planning the width of a room. The Modular Society's main activity nowadays is to go into the details of such problems, as between architects and manufacturers, and to work out the best selection of modular sizes for everyone's advantage.

"This work is carried on by our Technical Committee which meets every month. Manufacturer and architect members come to this committee to discuss the choice of sizes for components. Whenever the mem-

ber agrees to publication, an extract from the Minutes appears in Casebook in the Modular Quarterly.

"Our activities on British Standards Institution Committees are in a similar category. We are now represented on 18 B.S.I. committees: in fact all those that are at present active in the choice of sizes of building components.

"Our policy in regard to British Standards is not, as some have averred, to disrupt the building industry by a sudden switch over to modular sizes. Many existing sizes are modular already. Those that are not should remain, if wanted, for as long as they are wanted: but British Standards should henceforth add some carefully selected modular sizes in parallel.

"It is, of course, a disappointment to us that it has not yet been possible at B.S.I. to agree upon the issue of the main British Standard for modular co-ordination; but we are not letting that worry us unduly. The modular movement advances steadily in this country and overseas. Canada and the U.S.A. have already officially adopted the 4in. module and it is making good progress in the other inch-foot countries. National Standards establishing the 10 cm. module have been published in 18 countries. The time will come, and may come very soon, when people in this country will realise that we can no longer afford to stand aside. Perhaps the negotiations for the Common Market will carry modular co-ordination in their wake.

Two Subsidiary Standards

"In spite of the hold-up in issuing the Standard for modular co-ordination, good progress has been made with two subsidiary Standards, one on Tolerance and the other on Terminology in Modular Co-ordination.

"The British Standard for terminology was issued in 1957 (B.S. 2900 Part 1) and the B.S.I. holds the Secretariat for the Working Group of the International Standards Organisation.

"At a meeting in Paris next month it is hoped to finalise the international terminology for modular co-ordination and to allow I.S.O. to circulate its expected recommendation that—The size of the basic module is 10 cm. in countries using the metric system of measure and 4in. in

countries using the inch system of measure."

"Turning to Tolerance, we can claim that the Modular Society was the pioneer in applying to building a concept already familiar in mechanical engineering. The original proposal was published in the first issue of the Modular Quarterly (Summer 1955) in a report by Sefton Jenkins, now Chairman of our Technical Committee. The method about to appear in a draft British Standard is, in all essentials, the same as he proposed, and the Society adopted, six years ago.

"An orderly system of tolerances is essential for the success of modular co-ordination, but it can be introduced even before all buildings are modular and the Standard is being drafted to allow for this."

SHORTAGES HIT BIRMINGHAM HOUSING SCHEMES

Alderman J. J. Gorgan, chairman of Birmingham's House Building Committee, stated recently that a shortage of bricks and building labour was holding up municipal house building in the city.

Only 2,300 men were engaged in building municipal houses whereas they could do with double the number, he said. In the main the shortage of men on housing contracts was due to larger schemes, such as office building.

Alderman Gorgan expressed the view that the Government should do something to secure a fairer allocation of the labour available, and he suggested that a bar should be put on some of the present office building schemes.

Birmingham Corporation had maintained a total of 4,500 to 5,000 in the pipeline for the past four or five years, he said, but they had never got more than 2,000-2,500 built. The number should be doubled if slum clearance was to go ahead as it should. They hoped to reach this year's target of 2,500. There was no point in increasing the target if they had not got the men to complete it.

Alderman Gorgan added that a shortage of bricks had held up one Corporation house building project, at Pershore Road, Edgbaston, for six months, and a builder on another site had had to dismiss half his bricklayers because he was getting 8,000 bricks a week instead of the 20,000 he needed.

£4M. LEITH DOCK DEVELOPMENT PLAN

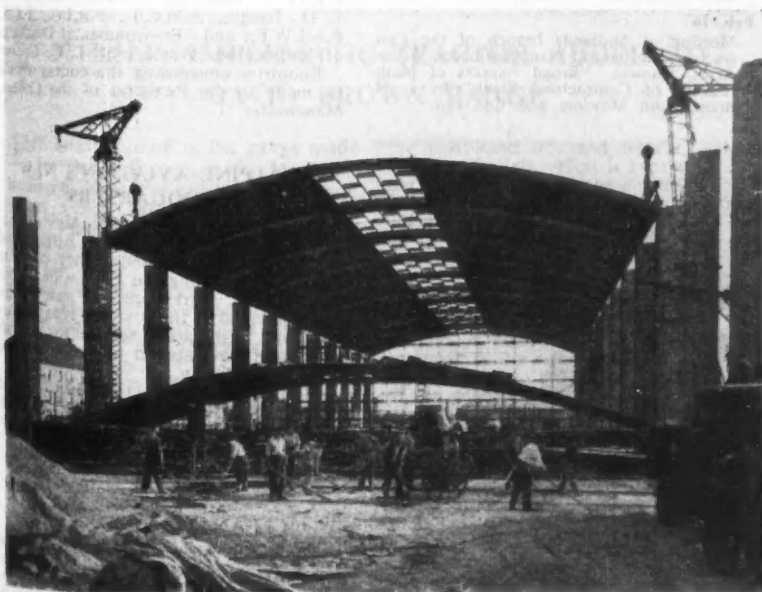
Leith Dock Commission have prepared a £4m. development plan which provides for the construction of a lock 850ft. by 110ft. by 37ft. at the entrance of the Western Harbour, converting the tidal basin into an enclosed basin.

Also proposed are the dredging of the approach channel to provide a minimum depth of 40ft. at mean high water; impounding the water within the dock to a height of 1ft. above high water spring tides; widening and deepening the Imperial Dock entrance; dispensing with the four existing dock locks in the harbour; filling in part of the east and west docks to provide additional quays and 11 acres of building land.

SOIL TESTING LABORATORY IN OPERATION

British Railways, North Eastern Region, have recently opened a large extension to their soil testing laboratory at Leeman Road, York. This adjoins the main building of their newly completed concrete depot, and follows the introduction last year of a mobile soil testing laboratory, the first of its kind to operate on British Railways.

The laboratory is fully equipped with up-to-the-minute machines. Some of the machines serve a dual purpose, as they are also used by the adjacent concrete depot for testing cement mixes and aggregates, and for crushing tests.



Sixty-ton prefabricated roof sections being hoisted into place at a new cable factory in Budapest, Hungary. The 250yd.-long workshop is designed by Gyula Matray and Karoly Paszti of the State industrial planning department Iparterv. The prefab. sections are made on the site

FOR THE DIARY

Nov. 30

Annual dinner and dance of the Institution of Water Engineers, Park Lane Hotel, London.

Annual dinner and dance of the Derbyshire branch of the Contractors' Mechanical Plant Engineers, Victoria Restaurant, Chesterfield.

Institution of Civil Engineers, Great George Street, London, S.W.1. Informal discussion, introduced by D. H. Little, on "The Relative Merits of Rigid and Flexible Construction for Quays and Jetties."

Dec. 1

Winter general meeting of the Institution of Water Engineers, at Institution of Civil Engineers, London.

Dec. 4

Royal Smithfield and Agricultural Machinery Show, Earls Court, London.

Dec. 4-8.

Ordinary general meeting of the Royal Institution of Chartered Surveyors, 12 Great George Street, London, S.W.1. 5.45 p.m. "Post-war Developments: The Location of Major Projects in England and Wales," by Dr. E. C. Willatts, O.B.E., B.Sc.

Dec. 5

London Master Plasterers Association annual dinner and dance, Grosvenor House. Meeting of Southern branch of the Contractors' Mechanical Plant Engineers, White Hart Hotel, Mitcham Green, Mitcham, Surrey. 7.30 p.m. Social evening, proceeds to Christmas entertainment for spastic children.

Institution of Civil Engineers, Great George Street, London, S.W.1. "The Wales Empire Pool, Cardiff," by E. C. Roberts and J. R. Kell.

Meeting of Manchester and District branch of the Contractors' Mechanical Plant Engineers, Woodcourt Hotel, Brooklands Road, Sale. 7.30 p.m. "Contractors' Plant and the Police." Lecture.

Dec. 6

Meeting of the Reinforced Concrete Association at 11 Upper Belgrave Street, London, S.W.1. "Watertight Concrete Basements," by L. R. Creasy.

Dec. 7

Annual general meeting of the Institution of Highway Engineers and "Multi-level Intersections"—a symposium of Papers. Institution of Civil Engineers, Great George Street, London, S.W.1. Informal discussion, introduced by A. H. Cantrell, S. Stevens and H. Mallinson, on "The Most Appropriate Training for a Railway Civil Engineer."

Annual dinner and dance of the Midland branch of the Contractors' Mechanical Plant Engineers, Town Hall, Sutton Coldfield.

Meeting of the London branch of the Contractors' Mechanical Plant Engineers, Hendon Way Hotel, Hendon Circus, N.W., 7.30 p.m.

Dec. 8

Annual luncheon of the Institution of Highway Engineers at the Park Lane Hotel, London, W.1. 12.30 p.m.

Federation of Master Builders' London Region "Ladies Night," Grosvenor House, London. 6.30 p.m.

Dec. 12

London Association of Master Stonemasons, bi-annual dinner and dance, Park Lane Hotel.

Meeting of Manchester and District branch of the Contractors' Mechanical Plant Engineers, Woodcourt Hotel, Brooklands Road, Sale. 7.30 p.m. Annual Christmas Stag Dinner.

Dec. 14

Stag dinner of the Yorkshire branch of the Contractors' Mechanical Plant Engineers.

Dec. 19

Meeting of the Western branch of the Contractors' Mechanical Plant Engineers, Royal Hotel, College Green, Bristol. 7.30 p.m.

Dec. 20

The Institute of Sewage Purification—Metropolitan and Southern Branch symposium on the treatment of industrial and sewage sludges at Friends House, Euston Road, London, N.W.1.

Jan. 2

Meeting of Manchester and District branch of the Contractors' Mechanical Plant Engineers, Woodcourt Hotel, Brooklands Road, Sale. 7.30 p.m. General discussion.

Jan. 9

Meeting of London branch of the Institution of Plant Engineers, Royal Society of Arts, London. 7 p.m. "Fire Research—Causes and Control," by Dr. F. E. T. Kingman, assistant director, Fire Research Centre.

Jan. 19

Meeting of Midlands branch of the Contractors' Mechanical Plant Engineers, Wilson Arms, Knowle. Film: "Ascot Grandstand."

Jan. 23

L.M.B.A. annual general meeting and lunch, Park Lane Hotel.

Jan. 26

London Master Plasterers Association annual general meeting, Charing Cross Hotel.

Jan. 27

Annual dinner and dance of London branch of the Contractors' Mechanical Plant Engineers, Criterion Restaurant, Piccadilly.

Feb. 16

Meeting of Midlands branch of the Contractors' Mechanical Plant Engineers, Wilson Arms, Knowle. "Broad Aspects of Maintenance of Contractors' Plant," by J. H. Brass, John Mowlem and Co., Ltd.

ELECTRICITY SUPPLY AND DISTRIBUTION

Electricity consumption in factories is still increasing. A study—"Electricity Supply and Distribution," Factory Building Studies No. 10 (published for D.S.I.R. by H.M.S.O., price 3s. 6d., by post 3s. 10d. (U.S.A., 63 cents)) of the supply and distribution of electricity in factories appears at a time when the growth of factories is accompanied by an increasing appreciation of the need for adequate economically planned electrical services.

That such a need exists is illustrated by the fact that the first cost of a factory's electrical system may amount to as much as 20 per cent. of the total building cost, and that electricity consumption alone may contribute up to 5 per cent. of the cost of the final product. To factory management, therefore, the overriding consideration is that of the minimum cost, i.e. capital charges, maintenance and running costs, which will ensure a final product of the desired quality.

But merely to plan for minimum first cost, without allowing for the flexibility demanded by changes in machine layout, can be deceptive and may even prove to be costly; in many cases alterations to an electrical system during its economic life can cost more than the original installation. Flexibility is thus important and becomes increasingly so as technological change proceeds apace.

With these factors in mind the report sets out the main economic principles governing the large-scale distribution and supply of electricity to factories, and, while these principles apply to a greater or lesser extent to all factories, they will naturally be of most interest to the management and designers of large factories, and to the plant engineers responsible for their running and maintenance.

LECTURES ON RADIOACTIVITY

A short course of lectures on "Problems of Radioactivity at Water and Sewage Works," is to be held at the Manchester College of Science and Technology on Thursday and Friday, January 11 and 12.

The lectures will include: "Radioactivity," by J. C. Collins, B.Sc., M.S.E. A.M.I.C.E., M.R.S.H.; "Radiation Effects," by R. F. Farr, M.A., F.Inst.P.; "Radiation Measurement," by A. Quinton, M.Sc. F.Inst.P.; "Radiochemical Analysis," by J. W. Lucas, B.Sc., F.R.I.C.; "Problems at Sewage Works," by G. E. Eden, B.Sc. F.R.I.C.; "Problems at Waterworks," by J. D. Joseph, A.M.C.T., F.R.I.C., F.C.S. P.A.I.W.E.; and "Environmental Discharge of Radioactive Waste," by J. C. Collins.

Enquiries concerning the course should be made to the Registrar of the College, Manchester, 1.

McALPINE AVIATION'S NEW HEADQUARTERS

New headquarters for McAlpine Aviation have been built at Luton Airport, and are now being occupied. They comprise a hangar 240ft. long and 120ft. wide, offices, crew rooms, workshops and rest rooms. Also included is the first full repair, overhaul and installation service for aircraft radio and navigational aid equipment to be based at Luton.

McAlpine Aviation, the business flying division of Sir Robert McAlpine and Sons, moved to Luton in 1957, and since then the aviation division has expanded to a fleet of five aircraft.

CLEAN AIR EXHIBITION

The Clean Air Exhibition, organised by the National Society for Clean Air in conjunction with its annual conference, is changing its name. When it goes to Harrogate next year from October 9-12, it will be known as the "Clean Air, Fuel Efficiency and Domestic Heating Exhibition."



A Koehring 205 Skooper, owned by Thompson Cornwall, Inc., loads a truck during a grading operation on Project 18 of the new Pan American Highway in Guatemala

Trade and Company News

CATERPILLAR 944A WHEEL LOADER IN PRODUCTION AT GLASGOW PLANT

PRODUCTION of the 944A wheel Traxcavator at their Glasgow plant has been announced by the Caterpillar Tractor Co., Ltd.

The 2 cu. yd. machine is the latest addition to the growing range of Caterpillar equipment built in Britain, and is the second largest of the new wheel loaders introduced by the company in the United States last year.

One of the most outstanding features of the 944A is safety in design—all lift arms are located ahead of the operator's "open cockpit" for ease of access and a high degree of safe operation.

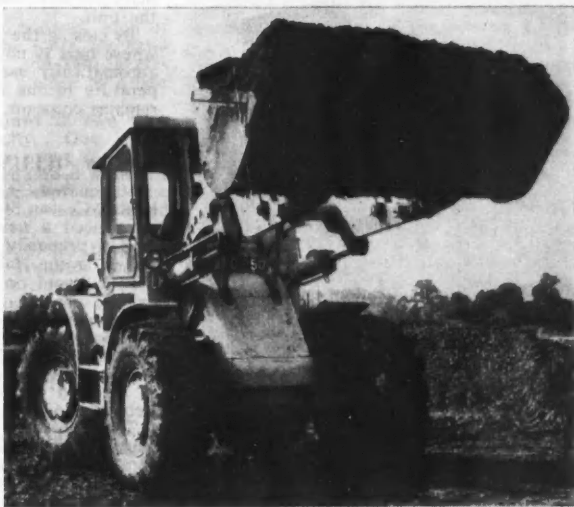
The front tyres are the farthest forward portion of the machine frame, and bucket reach is 4ft. 2in. at 7ft. dumping height. There is 2ft. 7in. reach at the maximum dumping height of 9ft. 1in. Automatic bucket positioner and lift kickout, both hydraulically operated, are standard equipment on the 944A. The rack-back of the bucket at ground level is 41 degrees, as on Caterpillar's track-type Traxcavators, with a 50 degree tip back at maximum height.

The 944A has a 105 h.p. diesel engine. Maximum rating of the D330 diesel used in the 944A is 135 h.p.; 24-volt direct electric starting is standard on this four-cylinder, turbocharged engine. Power shift transmission is geared to give reverse speeds 25 per cent. faster than forward speeds. Top speed is 30 m.p.h.

Ease of servicing is another feature of the 944A. The rigid protective fenders

covering the machine's wheels provide a platform for routine engine servicing. Tipping forward the operator's seat gives access to the transmission filter, control valve and loader pump, as well as for control linkage adjustment. Major servicing is easily performed—unit construction allowing independent removal of engine, transmission and other major components, ensures any adjustments or repairs can be done in the minimum time.

A full range of attachments is available



A 944A Traxcavator

to match the machine to specific applications. These include light material, quarry and side dump buckets.

The machine being produced at Glasgow is identical to the U.S.-built 944A, which has already become established in Britain. It supplements the range of equipment already being built at Caterpillar's Glasgow plant, and is the fourth model to become available from there.

52 B.H.P. IMPELMATIC TRACTOR ADDED TO DAVID BROWN RANGE

THE latest tractor in the range made by David Brown, Ltd., Meltham, Huddersfield, is the most powerful yet, having a new three-litre diesel which gives a maximum b.h.p. of 52. It is known as the 990 Implematic.

At just under 2 tons dry weight, the 990 has the highest power-to-weight ratio of any DB tractor. New features include a multi-speed power take-off, a high-clearance front axle, and increased height of lift at the linkage.

The new three-litre engine has been under development for several years. Its four-cylinder direct-injection unit has a bore of 3½ in., a stroke of 4½ in. and a compression ratio of 17:1. Direct injection four-stroke combustion is employed and wet cylinder liners are used.

The combined cylinder block and crankcase is extensively ribbed for rigidity and quiet running, the block having a built-in lubricating oil filter head which eliminates joints and loose fittings. A 1½ in. diameter splined extension shaft at the front of the crankshaft is capable of transmitting the full engine power for auxiliary drives.

Cross-flow porting has been selected with separate inlet ports for each cylinder on

the right-hand side and separate exhaust ports on the left. Heat is kept away from the induction side of the engine so that a full charge of cool air is delivered to the engine.

For Cooler Running

Valve guides integral with the cylinder head are used for cooler running and reduced carbon deposits, while freedom from sticking is assured by the fitting of free rotators on the exhaust valves. With the water pump and fan mounted on the front of the cylinder block, removal of the cylinder head is a simple matter. The four fine pitch spur gears which are used in the timing train are mounted on the cylinder block, are independent of the timing gear cover, and are pressure-lubricated from the engine system. Provision is made in the timing case back-plate for mounting a gear-driven power steering pump.

A new two-ratio power take-off unit is provided. This enables tractor and implement alike to be operated at the optimum running speed according to the working conditions. The British Standard speed of 540 r.p.m. is met in two combinations, namely in low ratio at the rated engine

AMASCO COMPLETES ITS AMALGAMATION

THE final stage in the amalgamation of Amalgamated Asphalt Co., Ltd., was announced last week by Sir William Cash, the chairman.

Sir William, who also introduced a brochure describing AMASCO and its activities, said: "In 1957 a number of companies joined together to form Amalgamated Asphalt Companies, Ltd.—AMASCO for short. The companies, without exception, were old established and had names honoured amongst their clients for their traditions of good service. Some of the titles of these companies were outstanding in their own right—among them Neuchatel Asphalt (Contracting), Ltd., Ragusa Asphalt Paving Co., Ltd., John Hadfield and Sons, Ltd., Highways Construction, Ltd., and Chittenden and Simmons, Ltd.

"After the amalgamation the various companies continued to operate under their own names, but the integration of staff, plant, transport, etc., has proceeded so satisfactorily that, apart from the method of trading, it is true to say that the various companies have merged into a single identity.

"Now we judge that the moment is ripe for the final stage in the amalgamation to be completed. As from January 1, 1962, the names on the first page of the brochure—Asphaltic Roadways, Ltd., Chittenden and Simmons, Ltd., John Hadfield and Sons, Ltd., Highways Construction, Ltd., Neuchatel Asphalt (Contracting), Ltd., Ragusa Asphalt Paving Co., Ltd., Tarpaving and Tarmacadam, Ltd.—will no longer be seen. Amalgamated Asphalt Companies will take their place."

FLEXPIPE TECHNICAL MANUAL

A technical manual on Flexpipe pitch fibre pipe has been produced by Bowater Flexpipe, Ltd., Ellesmere Port, Ches., with the assistance of Mr. Peter Burberry, Dip. Arch., A.R.I.B.A., A.R.S.H.

The latest information on drain design is given in a technical data section, which is intended to assist architects in designing efficient and economical systems. Similar manuals are being prepared covering the use of Flexpipe for electrical and other conduit work and for agricultural land drainage.

speed of 1,800 r.p.m. and in high ratio at 1,100 r.p.m. engine speed.

The front axle gives a ground clearance of 20in. and in order to maintain clearance, the height of rear lift has been increased so that any mounted implement can be raised to axle level. A new semi-automatic latch embodied in the hydraulic system can be used to lock the implement in the raised position for transport.

All-purpose hydraulics are under the control of a single lever. The same lever is also the means of applying Traction Control, the patented DB system of weight transfer, through the hydraulic system. A differential lock is fitted as a further traction aid.

The 990 is available in two models, one with single-stage clutch and the other a "Livedrive" model with two-stage clutch providing "live" hydraulics and "live" power take-off.

HARDBOARD FOR STRUCTURAL CLADDING

The Wood Fibre Wallboard Co., Ltd., 8 City Road, London, E.C.1, are now marketing a dense hardboard produced by the Masonite Corporation, of Chicago, and known as Masonite Sunline Siding. It is ½ in. thick with integral ribs spaced at 8 in., and is intended for use as structural cladding or for concrete formwork.

Trade and Company News**250 C.C. POWER UNIT
ANNOUNCED BY B.S.A.**

THE Birmingham Small Arms Co., Ltd., Birmingham, 11, have announced a new 250 c.c. twin four-stroke power unit, which is basically an industrialised version of the o.h.v. engine used in the group's scooters.

For constant speed operation it can be governed to 4,000 r.p.m., at which maximum b.h.p. is 7.5. For automotive use with variable speeds the maximum output is 8.6 b.h.p. at 5,000 r.p.m.

Constructed mainly in aluminium alloy, the unit weighs only 76lb. complete with electric starter and generator. Its dimensions are 13½ in. long, 12.9/16 in. wide, and 17.5/32 in. high. A cast alloy sump has been fitted, heavily webbed internally and incorporating the base mounting feet. The oil content is four pints, and the lubricant is pressure-fed to all bearings and the valve gear by a camshaft-driven plunger pump.

The connecting rods, which have replaceable big and small end bearings, are steel forgings. The one-piece forged steel crankshaft is carried in a special bronze alloy bearing at the generator side and a heavy ball bearing at the drive side.

A 12-V Lucas starting and generating system is employed, the starter having pre-engagement with a flywheel ring. The A.C. generator mounted on the crankshaft provides current through a rectifier for battery charging and coil ignition. Cooling is by means of a fan and cowling, the latter being treated with an acoustic compound for extra quietness.

**SCAMMELLS INCREASE
PRODUCTION CAPACITY**

Reorganisation of Scammell's semi-trailer production works, involving improvements to work flow, and materials handling combined with wider use of power tools, has resulted in a 49 per cent. increase in capacity at their Moor Park works, near Watford. Further extensions will include a complete new plant for de-rusting, shotblasting, phosphating and zinc spraying.

Currently, the company is producing some 600 different types of trailer, based on 50 basic models, ranging in capacity from 3 tons to 17 tons. Amongst the latest models is a range of trailers with the 5th wheel coupling, including several "matched" with Leyland and Albion tractors.

The building of trailers for special purposes including a range of municipal units and conversions of Leyland, Bedford and other tractors for Scammell automatic coupling gear are carried out in shops adjacent to the main factory.

**THIRD EDITION OF BISON
TEXT-BOOK**

The third edition of the Bison Information Book, a comprehensive survey and reference book on precast concrete flooring and roofing, has now been published by Concrete, Ltd., Green Lane, Hounslow, Middx., at a price of £2 2s.

Greatly enlarged in size and scope, and completely revised and extended, the heavily-illustrated book contains 187 pages. It is designed to set out the essential facts and considerations necessary to enable a designer to make a quick accurate assessment of the advantages or otherwise in the use of precast concrete.

The book is the first of two volumes. Volume 2, to be published later, will be concerned with structural precast frames, bridge beams and piles.

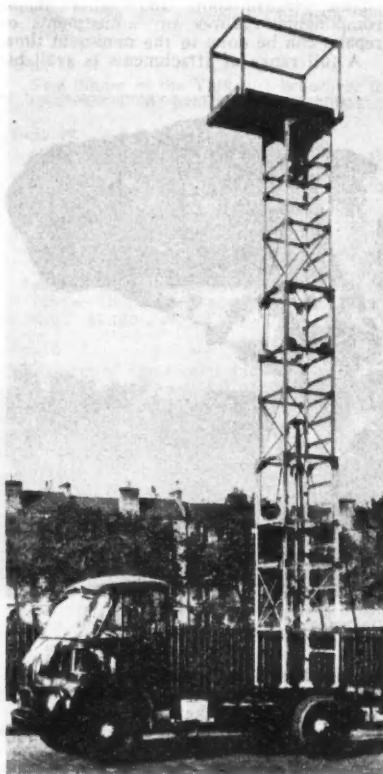
WEEK OF EXPORT

During the week ended November 11, every confirmed order received by Priestman Brothers, Ltd., Hull, was for export. Orders totalling just under £1m. sterling were received from Holland, Portugal, Spain, Belgium, Greece, Poland, New Zealand and Uruguay.

**GIBSON PRODUCE NEW MOBILE
TOWER LADDER**

A NEW vehicle-mounted Mobile Tower Ladder is available from John Gibson and Son, Ltd., Leith, Edinburgh. One of these, the latest addition to the firm's present range has been sold to the municipal authorities in Tripoli, Libya.

The extended height of the platform is 27ft. and maximum working height is some 5ft. higher. The tower is in three telescopic sections, closing down to approximately 12ft. 6in. overall, and is



The mobile tower ladder

hydraulically operated from the cab of the vehicle. Any intermediate elevation can be selected as required and ram stroke limitation ensures that the tower cannot be extended inadvertently beyond the maximum height. Two safety devices are incorporated which ensure that the tower will be lowered gently in the event of rope breakage or leakage from the hydraulic system.

The tower framework is constructed of hollow aluminium sections, giving rigidity with light weight and corrosion resistance. The turntable platform has a folding guard rail. Powered by a Morris diesel engine, the tower is mounted on a lefthand drive chassis with a 9ft. 6in. wheelbase.

For transportation purposes—as used when shipping to Tripoli—the tower can be laid vertically along the chassis with the platform removed and laid on top. In this way the overall dimensions do not exceed the length and height of the vehicle.

**GORLESTON FIRM CHANGES
HANDS**

Following the death earlier this year of the chairman and managing director, Mr. H. G. Holmes, terms have been arranged and contracts signed for the sale of the majority of the ordinary shares of H. A. Holmes and Sons, Ltd., Gorleston, Great Yarmouth, to Mr. J. I. Taubman, a London businessman.

Mr. J. Dunning, who has been managing director since the death of Mr. Holmes, will continue in that capacity.

**BAXI WARM AIR HEATING
SYSTEM**

THE introduction of a new warm air central heating system, the Baxi-Oil 30, has been made at the Building Exhibitions by Richard Baxendale and Sons, Ltd., Bamber Bridge, Lancs.

Particularly suited for central location for whole house heating, and fitting into a cupboard 21in. by 19in. by 90in., the Baxi-Oil 30 is a 30,000 B.Th.U. self-contained unit. Air is drawn through an intake grille, blown over the heat exchanger and conveyed through short ducts to grilles in the rooms. The stub ducts eliminate long runs, considerably reducing installation costs.

A modulating thermostat is fitted. This is set to the temperature required and automatically controls the oil burner to maintain the temperature of air leaving the unit.

By closing the grille in a room not in use where heat is not needed, the burner will automatically use less oil while the temperature of the air entering other rooms remains constant.

NEW ILLUMINATED CEILING

Lumenated Ceilings, Ltd., Alliance House, Caxton Street, London, S.W.1, have introduced a new illuminated ceiling intended primarily for commercial use and known as the Hallmark.

It is based on tensioned p.v.c. diffuser panels suspended in a metal frame from the structural ceiling so that natural or artificial light is diffused evenly over the working area. The rigid frame consists of galvanised 14-gauge rolled steel track of inverted T section, with a corrugated web.

The track is manufactured in 20ft. lengths and requires no intermediate support even in long spans between roof trusses and beams. Maintenance of lamps, heating and ventilation ducting and other services located above the ceiling may be safely carried out as the tracks are strong enough to bear the weight of a man without appreciable deflection.

Track cross-members are joined at right angles by specially made junction plates on which tongues clamp over the flanges of the track to give square, accurate location. The tracks are supported by ¼ in. threaded rods, hooked over beams or into plates fixed to the structural ceiling. These suspension rods are supplied in standard lengths from 2ft., increasing by multiples of 2ft. to suit any plenum depth. Each standard rod allows for an adjustment of about 4in.

Panels of p.v.c. film, 3ft. or 3ft. 4in. square, locked in permanent tension in aluminium frames, are held rigidly in position on the track by a spring locking clip. The only visible part of the track in a completed ceiling is the underside of the inverted T section.

**DIFFERENTIAL LOCK ON DEXTA
TRACTOR**

Differential lock will in future be fitted as standard equipment on all agricultural builds of the Fordson Dexta tractor. This will enable the operator to cut out the differential action of the rear axle shafts, so obtaining the effect of a combined pull from both wheels.

The device is engaged by locking the right-hand differential side-gear to the case adaptor. The method employs a face dog coupling, moved into mesh through the linkage and operating fork, by a pedal near the operator's right foot.

SEALED SURFACED HARDBOARD

Spencer Lock and Co., Ltd., City Wall House, Chiswell Street, London, E.C.1, announce that the Swedish manufacturers of Royal Board are now introducing a new sheet material to be known as Royal Sealed—a hardboard impregnated in manufacture to give a sealed surface. The new board has the characteristic qualities of standard board, but requires less painting.

Trade and Company News

ONE-MAN CONTROL ON NEW READY-MIXED AND WEIGH-BATCH PLANTS

RECENTLY completed contracts by R. Niagara Screens and Plant, Ltd., Enfield, Middx. have included the design and erection of a fully automatic ready-mixed concrete plant and an automatic concrete weigh-batch plant for wet or transit mixing.

The ready-mixed plant is now in use by Gerrards Cross Sand and Gravel Pits, Ltd., and produces concrete in any quantity and to any specification. It is operated by one man at a console and has a rated capacity of 60 cu. yd. an hour.

There are four storage hoppers, each of 50 cu. yd. capacity. One takes the sand and the others 1 in., 1 1/2 in. and 1 3/4 in. aggregates respectively. They are fed by a belt conveyor.

The cement is contained in two silos each of 30 tons capacity. One is for normal cement and the other for rapid hardening. Both are equipped with air slides for aeration from a compressor. The outlets are controlled by a variable speed rotary valve.

The sand bin is fitted with a probe to measure the moisture content and to record this reading at the console. Below the hoppers and silos are the constant weight feeders measuring the amount of each material and passing them on to a conveyor belt by which they are transferred to the mixer on the same platform as the control console.

The mixer is of the continuous twin arm type with manganese steel tipped blades, mounted on two shafts giving a complete helix action through the mixer body. The water enters at the rear of the mixer, the amount being decided according to the readings of the moisture content meter.

The body of the mixer is inclined and mounted on rollers. It is driven in the inclined position by an eccentric assembly ensuring the cleanliness of the equipment after each mix.

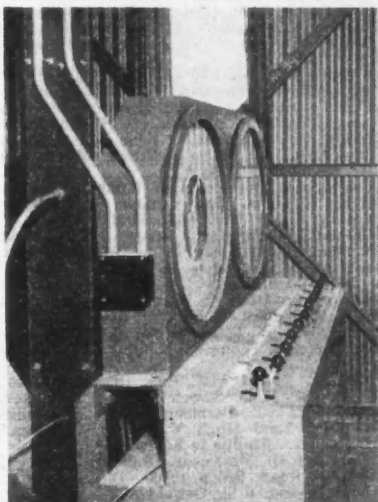
There is a flap valve at the head of the conveyors. If the materials are to be delivered dry the valve is positioned to discharge them by a separate chute adjustable to the height of the transit mixer to which it is delivering.

Control Console

The heart of the plant is the console. It has dials showing the feed rate of each material, sand, aggregate and cement. There are repeater dials from the control box of each of the constant weigh-feeders at the storage end of the plant. Below each of these is a preselector dial which is set for

the amount of material required for each mix. A further dial is incorporated for the water meter which is set in the light of the reading of the moisture content meter and there is another for the timing of the batch.

Below these dials are the buttons for starting the feeders with separate buttons for the conveyor, compressor and mixer. The rotation of the mixer arms and the eccentric drive are wired into one so that they can start in advance. Should slight variation occur between feed dials and preset dials these are "raise" and "lower" buttons at the foot of the console which



Operator's console in Waterford weigh-batch plant

can be operated while the plant is at work.

With all the selector dials set, with the batch times and water, the conveyor, compressor and mixer are set running and the starting buttons for the feeders are operated. Then when the time set on the batch timer has elapsed all the units are automatically cut-out allowing the batch to be put through and delivered.

Cards are made out giving all details for every mix required of the plant. All the operator has to do is to set his dials according to the cards, start the plant, and the mix emerges.

The weigh-batch plant has been set up at Waterford for Inns and Co., Ltd. This also is controlled by one man at a single console. He weighs the aggregate, the cement and the complete batches, and these weights are automatically recorded on the dials of the console for the costing of the work.

The sand, gravel or shingle comes into the plant by a hopper. Beneath the hopper is a weigh bin which the material enters by helmet doors under air pressure. After weighing it passes on to a troughed belt conveyor which transports the material to a main receiving, or holding hopper of 1 yd. capacity, at the same level as the controlling console.

The cement is stored in two silos above the plant. It is transferred from the delivering lorries by air pressure. One side is for normal cement, the other for rapid hardening. The cement passes into a weigh bin by an air slide, the weight being recorded on the console. It is then transferred to a separate compartment of the receiving hopper already holding the weighed aggregate. From there the whole batch is discharged through a chute to the transit mixer below.

If a wet mix is required, the aggregate leaves the holding hopper for the mixer and the correct amount of cement is transferred from its weigh bin to the mixer. The right amount of water, determined by the fixing of a pointer on the water meter dial, is then delivered to the Blaw Knox Ultra Rapid Gyra mixer from an overhead storage tank. The dial pointer returns to zero after delivery of the water which enters the mixer through its spray bar as the mix proceeds.

The mixer pan forms part of the main frame structure of the plant. It gives an output of 60 cu. yd. an hour, and clean delivery of completed mixes is assured by the large doors operated by air pressure. The final positioned seal is made by a vertical jacking ram under the door.

As with the ready-mixed plant the operator has cards which give him the quantities required for whatever specification the plant is to produce.

TO MARKET ITALIAN MIXING UNITS

Burlington Engineers, Ltd., Park Royal, London, N.W.10, have been appointed sole U.K. agents and distributors for the Simesa range of mobile concrete weighbatching mixing units, made by Domenighetti of Milan.

Two models are available, producing 20 and 12 cu. yd. of mixed concrete per hour. Both units include a 20-ton cement silo which is self-erecting, a reverse drum mixer, a hand operated or automatic aggregate scaper-loader and a trailer for transportation.

PITCH FIBRE OUTPUT DOUBLED

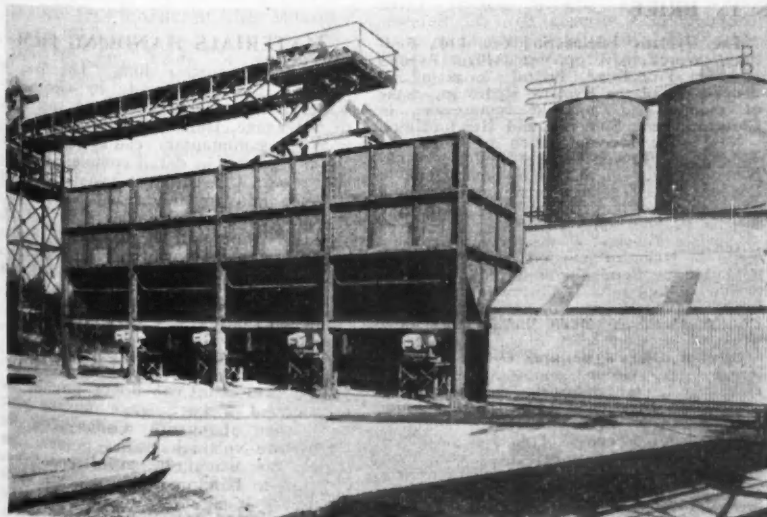
Production of pitch fibre pipes in the United Kingdom increased by 95 per cent. between 1957 and 1960. Another substantial advance is expected by the end of 1961 and the continued growth in demand shows no signs of abating.

These facts are given by Mr. John E. Ordish in his annual report as chairman of the Pitch Fibre Pipe Association.

The main force for this expansion has come from the enlarged usage of pitch fibre pipes for drainage purposes in building, main drainage schemes and civil engineering works on roads and railways. The other main outlet is for pitch fibre cable conduit.

CUMMINS ENGINES—MADE IN JAPAN

The International Division of Cummins Engine Co., Inc., Columbus, Indiana, have announced the signing of a licence agreement between Cummins and Komatsu Manufacturing Co., Ltd., Tokyo. Under the terms of the agreement Komatsu will manufacture Cummins NH-Series engines in the 180-220-h.p. range.



Aggregate hoppers and cement silos at the Gerrards Cross plant

Trade and Company News

NEW COMPANIES

The undermentioned particulars of new companies recently registered are taken from the daily register compiled by Jordan and Sons, Ltd., company registration agents, 116 Chancery Lane, London, W.C.2:—

Zelma Building Co., Ltd., 31/3 Crossways, N.16. £100. Directors: Erno Zelmanovits, 81 Boyston Road, N.16; David W. Capewell, 97 Sackville Road, Hove.

H. and F. Strange and Sons, Ltd., land drainage contractors. £2,000. Permanent directors: Harold Strange and Mrs. Frances K. Strange, Bessels Way, Besselsleigh Road, Blewbury, Didcot, Berks.

Palmer and Son (Edmonton), Ltd., 29 The Broadway, Edmonton, N.9, builders. £100. Directors: Gerald A. Palmer and Mrs. Doreen M. Palmer, 10 Elmcroft Avenue, N.9.

K. W. Richardson, Ltd., 12 Parkstone Road, Poole, Dorset, builders. £3,000. Directors: Kenneth W. Richardson and Eileen M. Richardson, 28 Upton Way, Broadstone, Dorset.

Building Renovations, Ltd., general cleaning contractors. £100. Directors not named. Subscribers: Miles G. Burrows, 3 Farley Court, Farley Hill, Reading; R. David Burrows, "Quarries," Stoke Row, Henley-on-Thames.

Arthur Edmonds Construction Co., Ltd. £1,000. Director: Arthur F. Edmonds, senior, 58 Oakfield Road, S.E.20.

R. and L. Demolitions, Ltd., 15-16 Rathbone Place, Oxford Street, W.1. £2,000. Directors: Walter D. Cartermole and Doris M. Cartermole, "Sunspot," Farm Road, Bracklesham Bay, Sussex.

John Young (Crane Hires), Ltd., Southwick Goods Station, Southwick, Sunderland, Co. Durham. Permanent directors: John M. Morton, 49 Ewesley Road, Sunderland; Robert M. Young and John Young, 139 Tunsall Road, Sunderland. £10,000.

G. R. Contracts (Darnall), Ltd., stone, artificial stone, aggregates, etc. £1,000. Directors: George Thorpe and Kenneth Renwick, addresses not stated. Subscribers: Mrs. Mavis Darling, 2 Palmer Crescent, Dronfield, Derbys.; Ronald Aspinall, 14 Holmley Lane, Dronfield, Derbys.

P. Boland and Son, Ltd., builders. £1,500. Permanent directors: Peter Boland and Mrs. Audrey P. Boland, 29 Pill Street, Cogan, Penarth.

Marshall of Luton (Builders), Ltd., Scoison Chambers, High Street South, Dunstable, Beds. £1,000. Directors: Alan Marshall and Mrs. Isa Marshall, 14 Curlew Road, Luton, Beds.

Rabbets and Wilkes, Ltd., 268 Bournemouth Road, Parkstone, Poole, builders. £10,000. Directors: Ernest E. Rabbets, Holmwood, Castle Hill, Parkstone; Harold A. Wilkes, Flat 3, 27 Dean Park Road, Bournemouth.

Reg Watson, Ltd., 2 Bondgate, Ripon, Yorks., builders. £900. Directors: Reginald Watson, 18 Highfield Road, Aberford, near Leeds; Leonard A. Gott, 2 Bondgate, Ripon. Geoffrey E. Gott.

Medway Concrete Aggregates, Ltd., 7 New Road Avenue, Chatham, Kent. £100. Directors: not named. Subscribers: Frederick P. King, 53 Maxtys Avenue, Langley Green, Crawley, (clerk); Francis W. Whitmore, 9 Kessley Mews, S.W.11 (clerk).

Mangla Constructors, Ltd., 66 Warwick Square, S.W.1. To tender for and construct a dam on the Jhelum River, etc. £100. Directors: not named. Subscribers: John W. Scott (solicitor) and John D. Campbell (clerk), 11 Old Jewry, E.C.2.

House and Tester, Ltd., 10 Godstone Road, Purley, Surrey, builders. £2,500. Directors: Ernest J. P. House and Mrs. Jean House, Worth House, Lodge Lane, Salfords, Redhill, Surrey.

Arnold Reinforcements Ltd., 69 Wimpole Street, W.1, reinforced concrete specialists, etc. £100. Directors: Sidney P. Arnold and Joyce C. Arnold, 18 Maskall Close, S.W.2.

E.R.E. Builders, Ltd., 1 Rye Street, Bishop's Stortford. £100. Directors: Anthony G. Eastwood, 8 Mansion Drive Parsonage Lane, Bishop's Stortford; Elsie R. Eastwood, address not stated.

Ernest Harrison and Co., Ltd., Main Street, Menston in Wharfedale, Yorks., builders. £7,500. Directors: Ernest Harrison and Mrs. Nancy Harrison, "Banchory," Holme Grove, Burley in Wharfedale; John M. Harrison, "El-Sierra," Croft Park Estate, Menston in Wharfedale.

G. and M. Builders, Ltd. £1,000. Directors: Henry Graham, The Cottage, Park Drive, Forest Hall, Northumberland; Albert E. Graham, Earlington, Forest Hall Road, Northumb.; Thomas P. Mansworth, address not stated.

Leabrooks Plant, Ltd., Sleetmoor Lane, Sonercotes, Derbys., plant hire contractors. £100. Directors: John W. Heywood, Restholme, Steap Turnpike, Matlock, Derbys.; Mrs. Leonore Thompson, Church Drive, Linby, Notts.

H. A. Pettitt and Sons (Builders), Ltd., "Ashdon," High Street, Thorpe le Soken, Essex. £2,000. Permanent directors: Hugh A. Pettitt and Hugh V. Pettitt, "Ashdon," High Street, Thorpe le Soken.

W. and D. McDonald (Builders), Ltd., 42 Estcourt Road, S.W.6. £100. Directors: Wm. H. McDonald, 6 Sir Oswald Mansions, S.W.6; Dennis W. McDonald, 91 Donaldson Road, S.E.18.

Aburspeeds, Ltd., builders. £100. Directors: to be appointed by subscribers. Subscribers: Jean Herbert and T. A. Herbert, 156 Strand, W.C.2.

Peter Wellfair (Contractors), Ltd., £100, builders. Directors: Peter G. Wellfair and Mrs. B. Wellfair, 77 Swakeleys Road, Ickenham.

Daton and Co. (Morley), Ltd., 50 Little Horton Lane, Bradford, 5, structural engineers. £1,000. Director: Gerald G. Ellison, 13a Kent Road, Harrogate.

L. K. Allison (Plastering Contractors), Ltd. £5,000. Director: Laurie K. Allison, 159 Cotmore Lane, Walton-on-Thames, Surrey. Subscriber: Mrs. Sylvia M. Allison, 159 Cotmore Lane, Walton-on-Thames, Surrey.

TRADE NEWS IN BRIEF

Parkinson Cowan Industrial Products, Dolphin Works, Fitzalan Street, London, S.E.11, have produced a multi-colour leaflet describing the Merlin gas radiant heater.

An illustrated brochure and a four-page pamphlet have been produced on the subject of water-repellents based on silicones by the Nobel Division, Imperial Chemical Industries, Ltd., Sevenston, Ayrshire.

Martin, Black and Co. (Wire Ropes), Ltd., have recently combined their north-west area office and depot at enlarged premises at the depot address, 99a Webster Road, Liverpool, 7.

The depot telephone number remains Sefton Park 6669, but the office number is now Sefton Park 7556.

A new eight-page booklet, published by the Plywood Manufacturers Association of British Columbia, 1 Grosvenor Square, London, W.1, gives simple descriptions of the methods for framing and erecting concrete forms in fir plywood.

The use of solid carbon dioxide as a refrigerant to isolate sections of pipe for repair work, is described in a new booklet, "Drikold and the Repair of Oil Pipes," published by I.C.I., Ltd., Billingham Division.

Towler Sales, Ltd., 10 Bardon Chambers, Infirmary Street, Leeds, 1, have been appointed sole world selling agents for the industrial application of Gleniffer diesel engines.

The Hymatic Engineering Co., Ltd., Redditch, Worcs., have appointed Plant Repairs (Bristol), Fox Road, Bristol, 2, as official distributors of the Hymatic Hydrovane range of mobile and portable compressors in Gloucestershire, Somerset and Herefordshire.

New office accommodation to house the whole of the Ruston Group's London staff has been acquired in Berkeley Square House, London, W.1. The new premises will be the focal point of the London activities of the Ruston Paxman Sales Division.

"Surface Finishes" is the second of a new series of technical booklets in the A4 size, published by Permanite, Ltd., 455 Old Ford Road, London, E.3. It illustrates a selection of the mineral surfaced felts and mineral chippings used as surface finishes on roofing work.

Glenhill (Office Furniture), Ltd., a company in the JEL Group, announce that from December 1, 1961, their name will be changed to Glenhill Office and Industrial Furniture, Ltd.

Combustion Chemical, Ltd., announce that John Thompson (Australia) Pty., Ltd., have been appointed agents for Australia and New Zealand for Desulfuro sulphur inhibitor and fuel improver and other products in the C.C.I. range of fuel treatments and combustion additives.

PORTLAND STONE AS PERMANENT FORMWORK

THE STONE FIRMS, LTD., Abbey Yard, Bath, have introduced a new system of stone cladding which employs thin slabs of Portland stone as permanent formwork. Advantages claimed for the system are the reduction in weight and thickness of external walls, cost savings arising from the use of modular slabs in repetitive units, the abolition of metal cramps and dowels, and the simplification and speeding up of fixing.

The new system, which is called Thinwall, consists of slabs of Portland stone, 2½ in. in thickness, and on any module determined by the architect. The maximum size of stone, however, is approximately 3ft. by 2ft. Each slab has two dovetail slots and two horizontal checks cut in the back. The stones are fixed and held in position by a system of plates and spacers bolted to internal shuttering. The concrete is placed and vibrated.

In the process the vertical dovetail slots and horizontal checks are filled, tying the stonework to the main structure. When the concrete back has set the snap bolts are broken off and the plates and spacers removed. The holes are grouted and the joints pointed up.

Examples of the way in which Thinwall may be used apart from overall cladding are by the creation of large-scale stone relief panels on various backgrounds, or by creating relief patterns within the stonework itself, possibly incorporating different textures of stone. Machine patterned stone panels can be incorporated into the system. If desired emphasis can be given to the individual stones by rustication the joints and by breaking the horizontal run of individual slabs.

Thinwall costs about 18s. per super. ft. erected in the London area.

BRITISH ALUMINIUM BUILDING SERVICE EXTENDED

The British Aluminium Building Service, a co-operative effort inaugurated by The British Aluminium Co., Ltd., and many manufacturers of aluminium building products in July 1961, provides architects with information on the uses of aluminium in the building industry through a comprehensive technical manual entitled "Aluminium for Architects." Every architectural practice in Great Britain has now been supplied with a copy of the manual, which will constantly be kept up to date and enlarged.

The Service has now been extended to cover all quantity surveying and consulting engineering practices. These have been sent a complete set of the data sheets from the manual, which give detailed technical information on many aluminium building products.

MATERIALS HANDLING FILM

A new industrial film, "The Way of King's," has been made by George W. King, Ltd., materials handling specialists of Stevenage, Herts.

With a commentary read by John Snagge, the film shows in detail complete handling schemes in three diverse installations: the new plating plant of Vauxhall Motors, Ltd., Luton, the Peterborough factory of the Perkins Group, and an egg packing station at Kenninghall, Norfolk. The film has a running time of 22 minutes and was produced by Paul Barralet Productions, Ltd.

LURGI PLANT IN DERBYSHIRE

The National Coal Board propose the erection of a Lurgi gas-producing plant near their Langwith Colliery on the Derbyshire-Nottinghamshire border, from which gas would be piped under high pressure to London. The proposal, which at present is a tentative one, is for a gas works with a greater output than any other in Great Britain.

Trade and Company News

JOY-SULLIVAN'S NEW ELECTRIC ROTARY VANE COMPRESSOR

An electrically driven two-stage rotary vane, oil-flooded type compressor with a free air delivery of 600 c.f.m. at 100 p.s.i.g. is the latest addition to the range made by the Air Power Division of Joy-Sullivan, Ltd., Greenock.

Designed for heavy-duty applications, this R.E.600 is mounted on a channel section steel skid, with or without rail wheels, and is particularly suitable for underground operations. The rotary vane type compressor unit is identical to that of the Joy Airvane portable compressor of similar capacity and incorporates a side-by-side cylinder arrangement housed in a one-piece cast-iron stator housing, with helical gear drive between L.P. and H.P. rotors. A hardened bevel on the trailing edges of the rotor slots minimises vane wear and the counter-bored cylinder ensures adequate internal air sealing.

Compressor and electric motor are coupled as a compact unit in an oil-flooded gearbox. Helical gearing gives a speed increase of 0.77:1. No clutch is required between electric motor and compressor.

Brush electric motors fitted to the R.E.600 develop a maximum of 160 b.h.p. at 1,440 r.p.m. There is a choice of squirrel cage screen protected, totally enclosed fan-cooled, or totally enclosed flameproof motors. Voltages are 440-600-V and 2,750-3,300-V, 50 cycle supply. The motors are specially designed and incorporate a flange for direct mating to the gearbox.

A positive displacement gear-type pump driven by the H.P. rotor shaft provides flood-lubrication for the compressor and feeds all moving parts, including the drive gears. Air temperature is effectively lowered by the oil, which also acts as a compression seal between vanes and cylinder walls. The oil is cooled continuously by passing through a tubular-type fan-cooled heat exchanger. The oil is removed from the air in several stages and before discharge is passed through a fibreglass air/oil separator mounted

inside the air receiver. An air-intake filter is fitted and full-flow oil filters are included in the lubrication system.

The R.E.600 has a "Fail safe" safety circuit which will stop the compressor should the air discharge temperature exceed 225 deg. F. Units can operate safely in ambient temperatures up to 125 deg. F.

The control panel mounted on the compressor provides visual readings of inter-stage and final discharge air pressures, and discharge air temperature. An air-operated pilot valve assembly is incorporated for easy adjustment of air discharge pressure.

For easy transportation in restricted spaces, the skid mounting is designed so that it can be split into two sections, one carrying the compressor, heat exchanger, electric motor and gearbox; the other carrying the air receiver, air/oil separator, filters and accessories.

The compressor runs at constant speed and unloading is effected by a total closure inlet valve assembly controlled by an air-operated pilot valve.

PAKISTAN ORDERS FOR LEYLAND

The Leylands Motor Group have recently received orders from Pakistan for trucks and trailers worth over £250,000. The largest has been placed by Gammon Pesson (Pakistan), Ltd. and calls for 10 Leyland Hippo and 10 Scammell Himalayan dump trucks and a Scammell Constructor heavy-duty tractor with 60-ton trailer.

Other orders have come from the Water and Power Development Authority in Lahore for 20 Chieftain haulage chassis, two Constructor and a Super Constructor tractors; the Burmah-Shell Oil Storage and Distribution Co. of Pakistan, Ltd., for nine Leyland Comet tanker chassis; the Directorate of Supply in East Pakistan, for six Scammell Sherpa dump trucks; and the Central Ordnance Depot, Karachi, for four Scammell Scarabs and 16 Scammell semi-trailers.

POWERDOZER FOR MF-35 TRACTOR

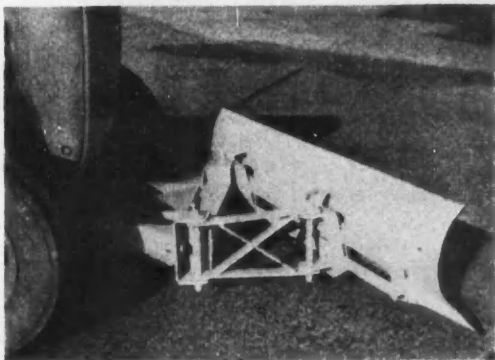
NEW addition to the Sapper range of dozing equipment made by Bomford and Evershed, Ltd., Salford Priors, Evesham, Worcs., is a Powerdozer for attachment to the Massey-Ferguson 35 tractor.

This 5ft. 6in. blade is universally mounted with two alternative pitch angles, quickly interchanged for excavating or levelling work. It can be offset on a sliding mount by up to 2ft. either side, and tilt is infinitely variable within a range of 25 degrees. Angling to right or left is accomplished by means of a single detachable gate.

The blade is carried by a heavily reinforced frame. Attachment to the tractor is at two points. Brackets are bolted to the front and mid-mounting pads of the tractor and once fitted the subframe can, if desired, be left in position without in any way interfering with the normal operation of the tractor. The blade and frame assembly are detached by the removal of three hand pins secured by lynch pins.

The standard version is powered by a double-acting

hydraulic ram, mounted alongside the engine, and finger tip control is provided by a valve mounted beneath the instrument panel of the tractor. A utility version is also available, with powered lift and gravity drop provided by a mechanical link to the tractor lift arms. In this case control is by means of the position control lever on the tractor quadrant. The utility is identical to the standard version in all other respects.



Powerdozer for MF-35 tractor

LAND DRAINAGE EQUIPMENT

Annual Auction Sale Results

ACTING upon instructions received from the Ministry of Agriculture, Fisheries and Food, Norman Wright and Partners conducted the annual dispersal sale of surplus land drainage machinery, equipment and spares, at the main Workshops Depot at Westwood, Peterborough, on November 8. This year's sale comprised some 400 lots including 15 excavators, 18 tractors, 11 trenchers, implements and attachments and 150 lots of spares.

As usual the sale was attended by buyers from all parts of the United Kingdom and the top price of the day was £950 paid for a Priestman Wolf Mk. 111B excavator. Other prices recorded included:

Another Priestman Wolf Mk. 111B excavator, £775; Priestman Wolf Mk. 111A excavators, £600 to £650; Priestman Wolf Mk. 11 excavators, £450 to £460; Priestman Cub Mk. 1V excavator fetched £800 after fierce competition and other similar models made to £425; Teredo equipment series 1, £70; two Teredo scoops, £26; two 7 cu. ft. taper sided scoops, £52 per lot; two 8 cu. ft. straight drag scoops, £52.

Trenchers

Top price recorded for a Howard trencher fitted to standard Fordson diesel tractor was £730 and other similar models made to £410. Two Winget Parsons Trenchmobile Model 88 trenchers made to £400 each. Buckeye trencher Model 11W, £230. Buckeye trencher Model 16SD, £60 to £140.

Tractors

The highest price recorded was £300 for a Caterpillar D4 tractor followed by International TD 9 which made £280; Fordson County crawlers, £200; Fordson Major diesel tractors to £260.

Workshop Equipment

Mann Egerton 35cwt. portable crane, £18; Rapier 1½in. pump, £16; Kismet Speedair portable compressor, £14; B.E.N. portable compressor, £16; Epco 5-ton trolley jack, £17; Ingersoll Rand compressor, £68; Van Dorn valve seat servicing kit, £12 10s.; hand tools to £7 10s. per lot; taps and dies, £16; King Dick socket set, £17.

Spares

Set of Priestman tracks, £97 10s., and a similar lot, £85; a large quantity of Priestman spares made up to £38 per lot; Dorman engine spares, £26 and £23; A.E.C. spares, £16; Howard trencher spares to £52 10s. per lot; Buckeye trencher spares to £44 per lot; general transport spares to £8 per lot.

BATTERY-OPERATED FORK-LIFT TRUCK

A new battery-operated fork-lift truck has been introduced by The Montgomerie Reid Engineering Co., Ltd., Bramley Green, Hants. Known as the Reachstack, it has a scissor-reach action and a capacity of 1,400lb. at 20in. load centre.

The machine has two forward and two reverse speeds which are selected through a lever on the tiller arm. Speeds of up to 4 m.p.h. can be obtained, steering being directed from the tiller arm which also controls the band type transmission brake. The speed of lift is 30ft. a minute, loaded.

E.M. EXPANSION PLAN IN SOUTH AFRICA

Turner and Newall, Ltd., propose to commence work immediately on expanding the scope of their subsidiary in South Africa, Turners Asbestos Products (Pty.), Ltd.

A new factory is to be built in Durban which will house a plant for the manufacture of asbestos-cement sheeting and also the asbestos-cement pipe plant which is at present located at Driemanskop, Transvaal. The Driemanskop factory will be sold. The expenditure involved will be of the order of £750,000.

TO HIRE A.E.C. 10 CU. YD. DUMPTRUKS

PHONE
R.A. DAVIES
AT

Castle Bromwich 3721



Part of the fleet of 13 A.E.C. Dumptruks recently on hire from R. A. Davies to John Mowlem & Co. Ltd., at their Tinsley Park Contract near Sheffield

Photograph by courtesy of The English Steel Corporation

Also available on hire :

EXCAVATORS : 10 RB, 19 RB, 22 RB

ALLEN PARSONS 16 / 60 TRENCHER

J. C. B. MK. IV HYDRA DIGGER

MOBILE CRANES : COLES 5 TON

COLES 10 TON

TRACTORS AND SCRAPERS :

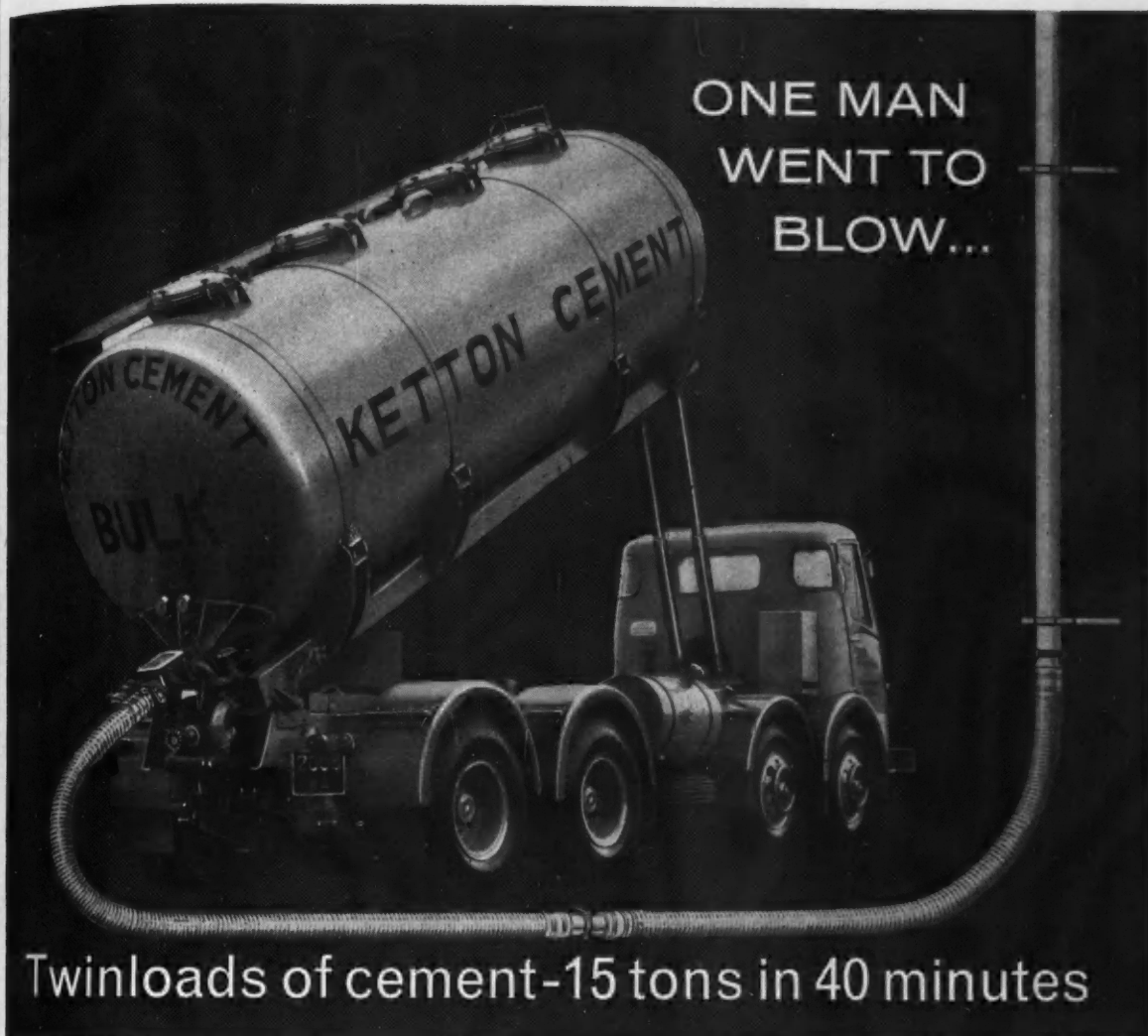
CATERPILLAR D4 CATERPILLAR D6

CATERPILLAR D7 CATERPILLAR D8

CATERPILLAR 933 TRAXCAVATOR

CATERPILLAR 955 TRAXCAVATOR

R. A. DAVIES (MIDLANDS) LTD. & PARTNERS • 102 HARTSHILL ROAD • BIRMINGHAM 34



ONE MAN
WENT TO
BLOW...

Twinloads of cement-15 tons in 40 minutes

ONE MAN AND HIS PNEUMAJECTOR

- Carries any 2 bulk materials
 - Driver operates dual-discharge valve
 - Two separate deliveries possible
 - Offloading at separate sites
 - Cuts total delivery mileage
 - Initiates more profitable schedules
 - Increases net fleet earnings
- Meet the New Twinload Pneumajector
- 2 Separate compartments each with 7½-ton capacity

Two 7½-ton loads are carried in the 15-ton capacity dual compartment 529 cu. ft. 19' 6" x 6' aluminium alloy cylinder. This can be mounted on any suitable tipping chassis. Flexible delivery hose is carried in light alloy boxes mounted on rear side of chassis. The driver controls independent twinload discharge from the rear of the Pneumajector. Each load is gravity fed to a mixing chamber, where it meets the compressed air stream leading to the discharge manifold. During unloading the cylinder is progressively tipped to empty it completely. Discharge rate varies according to material and distance to storage point.

The blower, operating at 10 p.s.i., is mounted on the chassis frame. Cylinders for this model are available in aluminium alloy, steel or stainless steel.

The ECONOMICAL, HIGHLY EFFICIENT TWINLOAD PNEUMAJECTOR HANDLES PROFITABLE PAYLOADS.

Sugar, salt, flour, grain, fertilisers, lime, foundry sand, fly ash and many others.

Write or phone for technical brochure or request a representative to call and discuss the Pneumajector with you.

BONALLACK

ESTD. 1885

BONALLACK & SONS LTD, NEVENDON WORKS

BASILDON, ESSEX. TEL 20481 (Pan Lines)



BRISTOL DIESEL CRAWLER TRACTORS



BRISTOL PD48 EURO
Excavator, Forward Loader and Over
32 B.H.P. 4½ TONS OF VERSATILITY

SALES AND SERVICE ORGANISATION

BIRTLEY, CO. DURHAM
MANCHESTER
KEIGHLEY
WORCESTER

H. N. Marsh & Co. Ltd.
C & A Plant Services Ltd.
E. Foulds (Motor Engineers) Ltd.
H. A. Saunders Ltd.

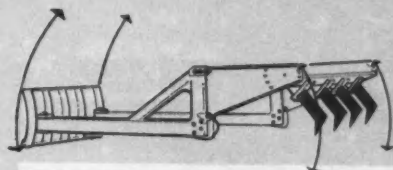
RADLETT (HERTS)
CREDITON (DEVON)
BELFAST
DUBLIN

H. A. Saunders Ltd.
H. A. Saunders Ltd.
McNeill (Engineering)
McNeill (Ireland) Ltd.

GLASGOW

Thomas Cochran Co. Ltd.

The world's finest light earthmovers



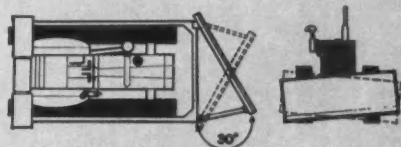
The Mounted Ripper for the Bristol Duplex Model is attached by 4 pins to the main dozer frame in a few moments and is supplied with 4 tines. This enables the double operation of Ripping and Dozing to be carried out without any change of equipment.

AVAILABILITY: DUPLEX ONLY



The Skate built-in road transporter gear is hydraulically operated by the tractor itself and permits the machine to be raised on road wheels for quick transportation behind a lorry. The road wheels are fitted or removed in a few minutes by one man.

AVAILABILITY: DUPLEX ONLY



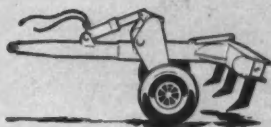
The Bristol Angledozer equipment provides for both Angling and Tilting. The blade may be employed straight for bulldozing or angled approximately 30° to left or right. For cambering or initial cuts into hard surfaces, the blade can be tilted to left or right.

AVAILABILITY: ALL MODELS



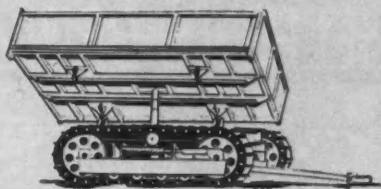
The 2 cu. yard (1.53 M³) Hydraulic Scraper weighs 1 ton (1016 kgs.) operates from the standard hydraulic system of the Bristol tractor—and can be attached or detached in 2 or 3 minutes, no extra equipment being required.

AVAILABILITY: ALL MODELS



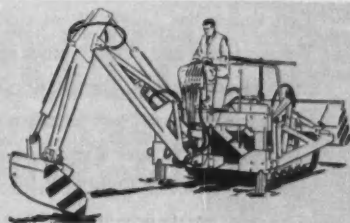
The Hydraulic Ripper weighs only 10 cwt. (508 kgs.) and operates from the standard hydraulic system of the Bristol Tractor. It is supplied with 4 tines which can be employed for Ripping, Rooting, and Subsoiling.

AVAILABILITY: ALL MODELS



The Soft Land 3-way hydraulic tipping trailer is available as a bare chassis or with steel body. The carrying capacity is 5 tons and the 16 inch (40 cms.) track plates provide very low ground pressure. The track parts are of standard Bristol type.

AVAILABILITY: ALL MODELS OR ANY TRACTOR WITH HYDRAULIC SYSTEM



Terrier Trencher Connect to or disconnect from the Bristol Tractor in a few minutes without other equipment. Digs to 12ft. deep x 3ft. wide with a wide range of buckets for trenching, clay, face shovel and general purpose excavation.

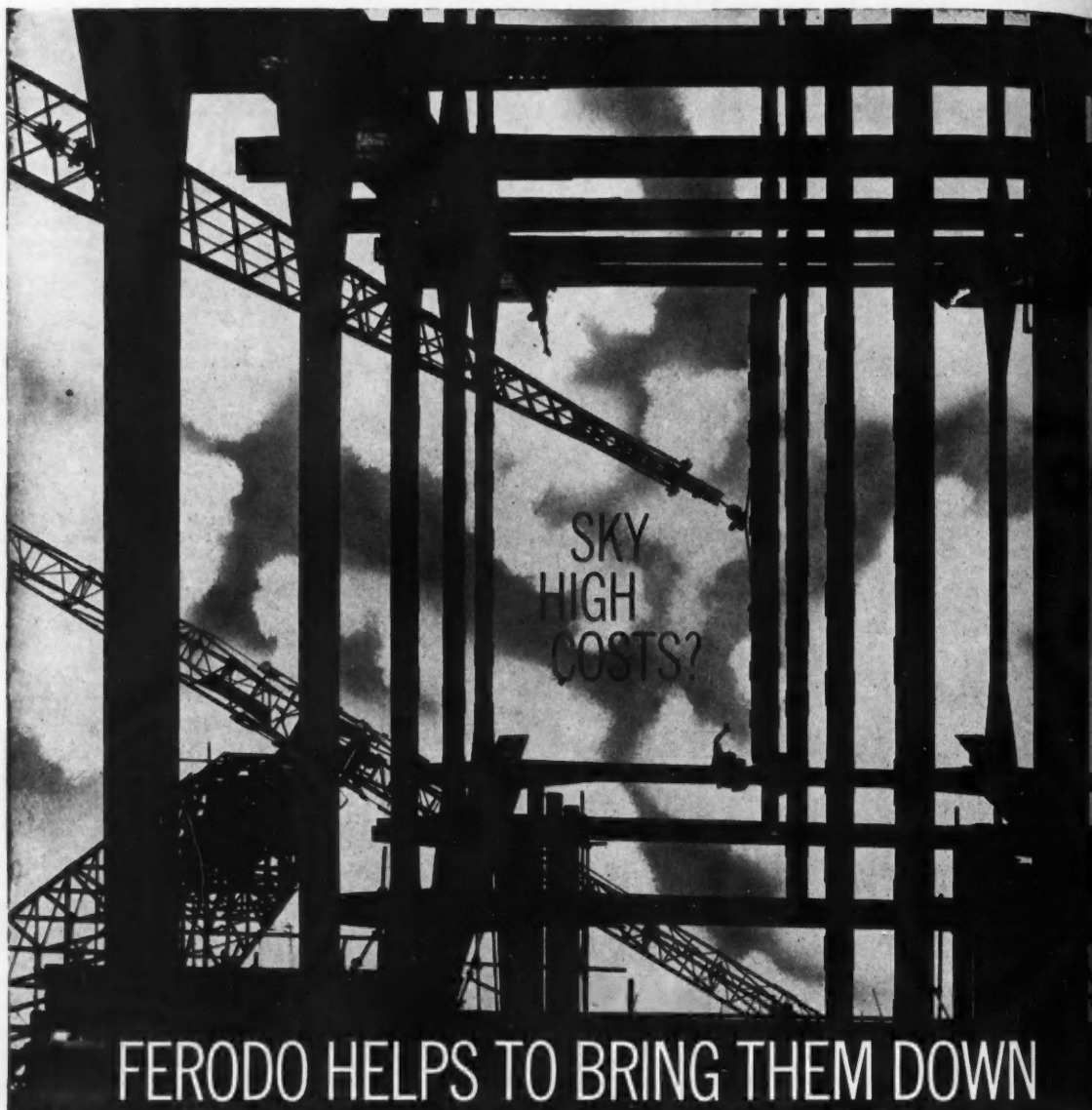
AVAILABILITY: DUPLEX OR EUTOPA

H. A. SAUNDERS LIMITED

INDUSTRIAL TRACTOR DIVISION

836-842 HIGH ROAD, NORTH FINCHLEY, LONDON N.12

TEL: HILLSIDE 8822 (15 LINES) Grams: Dutrax, London N.12



SKY
HIGH
COSTS?

FERODO HELPS TO BRING THEM DOWN

CUT
COSTS
CUT
DELAYS
SPECIFY

By specifying Ferodo heavy duty friction linings for all mechanical handling and earth-moving equipment, contractors throughout the country are reducing running costs on their plant.

Experience has taught them that the strength and lasting reliability of Ferodo brake and clutch linings give more working hours between replacement under the most punishing conditions . . . and that, when replacements are necessary, the Ferodo service is immediately available.

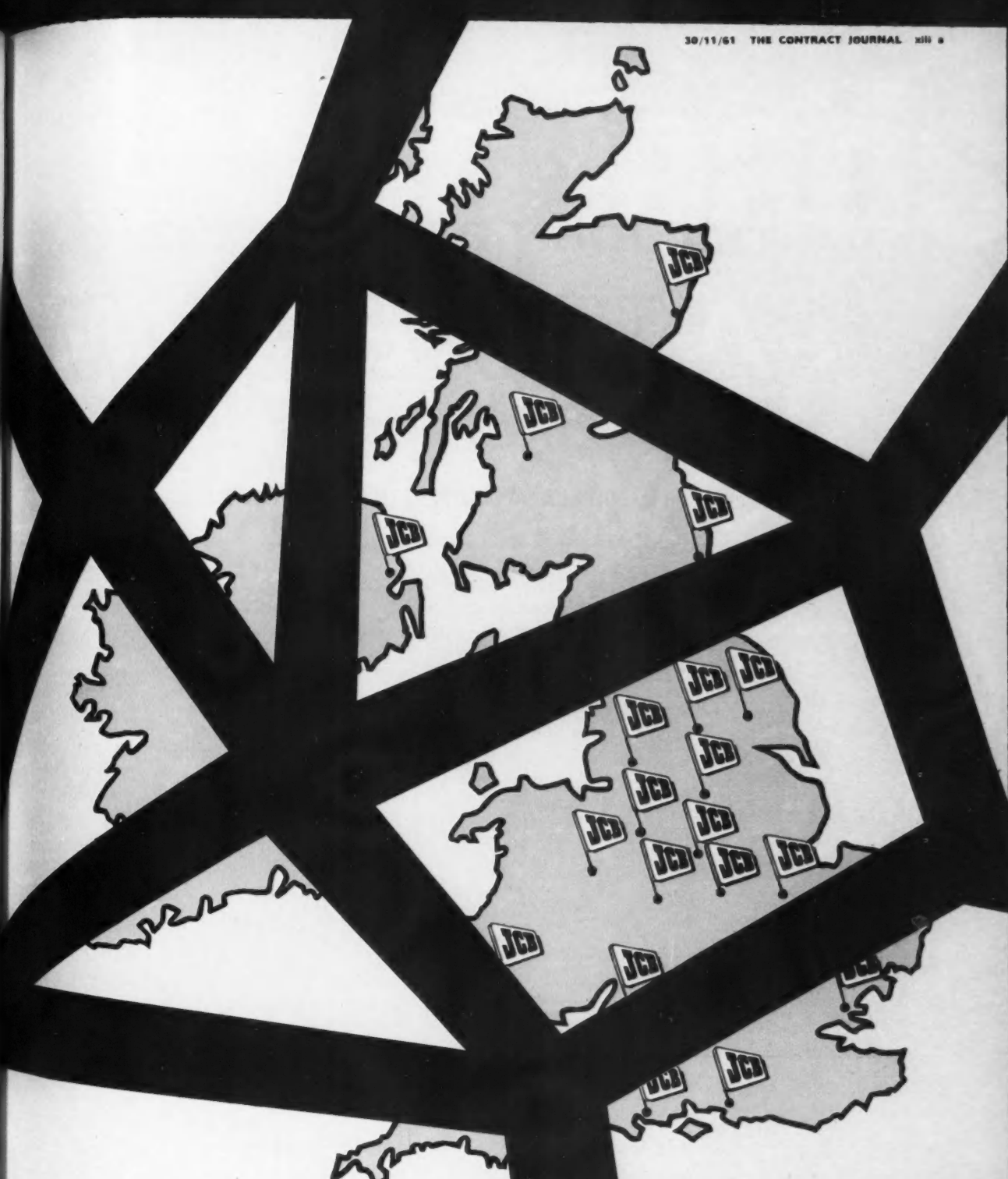
Strategically situated all over Britain, Ferodo depots can quickly supply the right linings for all types of British and American mechanical handling and earth-moving equipment, without time- and cost-consuming delays.

FERODO HEAVY DUTY FRICTION LININGS

FERODO LIMITED CHAPEL-EN-LE-FRITH

A Member of the Turner & Newall Group





A NETWORK OF QUALITY DEPOTS THROUGHOUT

SALES & SERVICE THE BRITISH ISLES

SERVICE ENGINES (NEWCASTLE) LTD.

Great Lime Road, Newcastle-upon-Tyne ☎ 665405

NORTHERN PLANT & MACHINERY CO.

Richmond Park, Finaghy, Belfast 10 ☎ 667145

J.A. STEWART (PLANT) LTD.

Milnbank Works, Townmill Road, Glasgow E.1 ☎ Bridgeton 4441

HARPER MOTOR CO. LTD.

Holborn Junction, Aberdeen ☎ 25357

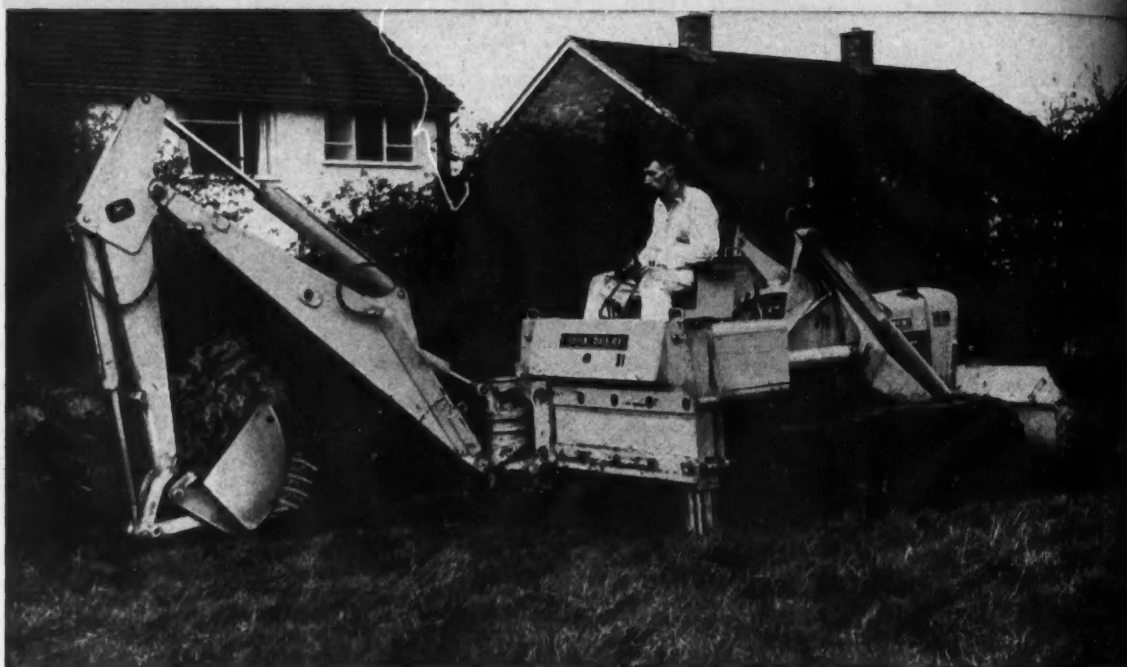


The JOHN DEERE-LANZ

FAST ACTION

BACKHOE

Currently working for JOHN LAING CONSTRUCTION LTD. on the M.6 Motorway



FASTER OPERATING

2-lever Joystick controls for all Bucket Arm, Boom, Bucket Crowd and Slew movement. The Operator's hands are always on the job.

FASTER BOOM OFFSET

5 digging positions, offset either side for digging against walls, or central: Easily and quickly changed by one man.

FASTER DIGGING

More power from John Deere oversquare diesel engine and new improved hydraulics give faster and more accurate digging—bigger production.

FASTER CHANGEOVER

One skilled operator can remove or replace the No. 51 Backhoe in a matter of minutes, including swivelling the dual purpose deluxe seat to Backhoe position.

The John Deere-Lanz No. 51 Backhoe has adjustable Crowd for square holes, power digging or lorry loading. A wide range of bucket sizes is available. This Backhoe can be supplied on the 1010 Crawler Loader or the 1010 Crawler 'dozer.



Sole John Deere Lanz concessionaires for England and Wales:

J. D. TRACTORS LTD.,

Maidenhead Road, Windsor, Berks. Tel: Windsor 1913.

10 ton loads

*tipped faster...
turned quicker*

with the

WHITLOCK

DD 70

DINKUM DUMPER



Main Distributors for YORKSHIRE

HOLDSWORTH (YORKSHIRE) LTD.

10 PARK SQUARE LEEDS 1

Tel. Leeds 32861

DEMONSTRATIONS · SALES · SERVICE · PART EXCHANGES · HIRE PURCHASE

Also Distributors for the range of WHITLOCK Hydraulic Excavators & Shovels

Economy in a Big way!



Here is rugged strength to overcome the roughest, toughest conditions . . . tread patterns scientifically designed for every sort of operation . . . built-in dependability to keep your machines always on the job. You can rely on the DUNLOP Earthmover range of tyres to give you the utmost in long, trouble-free service. Whatever your machines and your operating conditions, there are tyres in the Dunlop range specially built to do a first-class job for you!

DUNLOP

TYRES



cm/len/ou

- built better to last longer!

(Continued from page 568)

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

MUST BE SOLD.

10RB: 11000 Series, Dragline, £875; 13000 Series, F/S, £1,250; 17000 Series, Skimmer/Backacter, £1,200.
 19RB: 5000 Series, F/S, £1,300; 10000 Series, Backacter, £1,375; 11000 Series, Dragline, £2,150; 12000 Series, Dragline and Skimmer, £2,400; 18000 Series, Skimmer/Backacter, £2,500.
 22RB: 16000 Series, Dragline, Skimmer/Backacter; 20000 Series, Dragline, wide tracks, £3,750 each.
 24RB: 14000 Series, F/S, £2,800; 16000 Series, Dragline, £1,650.
 33RB: 19000 Series, Dragline.
 43RB: 2000 Series, Dragline, £1,750; 8000 Series, Dragline, £3,500.
 54RB: 9000 Series, Electric, F/S, £8,500; 22000 Series, F/S and Dragline, £16,500.
 100RB: 8000 Series, Electric, 31yd., F/S, £12,000.
 N.C.K. 304: 31000 Series, F/S, £2,650; 1800: Dragline, £2,750; 3100: Crane, £3,650.
 Smith 21, new 1956, F/S, £2,650.
 Lima 802, 1201 and 2400: Dragline or F/S or Crane.
 Lima 2400, 110-ton Cranes, new 1956 and 1958.
 D7 3T, 11000 Series, Cable Angledozer and Winch, £2,250.
 DB 2U, 7000 Series, Hydraulic Angledozer and Winch, £1,950.
 D9, 19A, 1000 Series, Dozer and C.C.U., £6,950.
 7-ton Anderson-Grice 1-motor Electric DERRICK CRANE, 120ft. jib, £3,250.
 Coles-Thornycroft M7, 7 Series 7, with Ford 4D in Crane, £2,550.
 Lorain MC3 MOTOCRANE, two Cummins Diesels, 70ft. Boom, First-class, £4,400.
 Please write to:
GREENLANDS CONSTRUCTION CO.,
 4 Koppel Sour, Old Windsor, Berks.
 Or telephone. Windsor 61937.

FOR SALE.

Vickers Victor 1000 Series TRACTOR, as new, with Angledozer Equipment and Winch, £2,500.
 Vickers Victor 18C Model TRACTOR, suitable for spares, £250.
 Fiat 55LI TRACTOR, with Angledozer, bought July, 1956, £850.
RAPID LOADERS, LTD.,
 152 Oxford Street, Bilston, Staffs. Bilston 41751/5.

FOR SALE.

BITUMEN AND TARMAC MIXING PLANT, 1½ and 1 cu. yd. Clarmac Mixers and Dryers, complete with Structure and Hoppers, £2,650.
 60 t.p.h. ROPEWAY, £750.
 Ruston 6VPHK 6-cyl. DIESEL ENGINE, £475.
MORRINTON QUARRIES, LTD.,
 Morrinton, near Dumfries. Tel.: Dunscore 206.

DELMAG Diesel PILE HAMMERS for HIRE . . . Models D5, D12 and D22, available with rope suspended leaders and leg guides, suitable for driving any section of piles. Also C.T.T. Delmag PILE FRAME with Turntable and Diesel Winch.
DUDLEY VALE, LTD.,
 9 Palace Street, London, S.W.1. Tel.: VICTORIA 0252.

URGENTLY WANTED, 19RBs, 22RBs, 33RBs and N.C.K. 304 EXCAVATORS, fitted with Dragline or Face Shovel Equipments. Machines must be in good condition. Immediate inspection and settlement. Write **GRAYSTON PLANT AND ENGINEERING CO., LTD.,** 32 Stewarts Road, S.W.8. Macaulay 6688.

FOR SALE, Five Challenger 1 BULLDOZERS, with Gardner 3-cyl. Engine, 60/65 b.h.p., Power Winch at rear, year 1954, first-class condition. Contact: **C. EVANS AND SONS, LTD.,** Burnside Wharf, Burnside Street, Bow, London, E.3. Tel.: ADV 5691-3.

PLANT HIRE: Earthmoving, Site Clearance, Excavations for Roads, etc.
DOUGLAS HAMILTON, LTD.,
 Tunbridge Wells. Telephone: Southborough 1538.

WANTED, Baxter Double Toggle 24in. x 12in. CRUSHER or 24in. x 6in. GRANULATOR. **TILBURY CONTRACTING AND DREDGING CO., LTD.,** Thames Street, S.E.10.

FOR SALE, 33RB 14500 Series DRAGLINE Excavator. Shovel Equipment available.
PLANT SALES, LTD., 25 Castlereagh Street, London, W.1. Telephone: Paddington 266315.

LABORATORY EQUIPMENT for SALE. Load Frame, Speedy Moisture Testers, Drying Ovens, etc., etc.
HAWLEY PLANT, LTD., Hawley Road, Dartford 21166.

FOR SALE, 40-ton Lorry-mounted CRANE. Write Box P.5225, "The Contract Journal."

BIG CRANE EXCAVATORS

Several for Sale
A.R.C. MOTOR Co. Ltd.
 REDHILL WORKS, ARNOLD, NOTTINGHAM
 Telephone: 26-3331/5

NEALE, WRIGHT

& COMPANY LTD.
 for
CONTRACTORS' PLANT

Thwaites Dumpers
 Parker Mixers
 Pegson Pumps
 A.C.E. Vibrators & Hoists
 Stothert & Pitt Rollers
 Pegson Rammers & Rippers
 Post Hole Borer

NEW & SECONDHAND
 PLEASE SEND YOUR ENQUIRIES

H.O.: Coventry Road, Cubbington,
Leamington Spa. Tel.: 8pm 924 & 925
London: Tel: FINchley 4322

SELECTED STOCK ITEMS.

J.C.B. 4, new 1960, three Buckets, £1,850.
 Dinkum Major DIGGER/POWER SHOVEL, 1958, £1,450.
 Dinkum Major DIGGER/POWER SHOVEL, 1959, £1,500.
 Dinkum Major DIGGER/COUNTERWEIGHT, 1959, £1,150.
 Benford W MIXER, with Weighbatter and Drag-scraper, electric drive, little used, 1960, £975.
 Alien TEK LORRY CRANE, Diesel, 30ft. jib, £2,750.
 Chasides 800TC, 1959, 1 cu. yd. Bucket, cab, £1,450.
 Jones KL22 Diesel CRANE, pneumatics, 24ft. jib, £775.
 Rapier 8½-ton Diesel/Electric CRANE, £3,750.
 Neals NM 2-ton Diesel CRANE, pneumatics, 30ft. jib, £1,150.
 Rapier 410 EXCAVATOR, Diesel, Skimmer, Trencher and Shovel, £950.
 10RB EXCAVATOR, 11419, Diesel, fitted Trencher, £700.
 Priestman Wolf A3165, Diesel, 18in. tracks, Skimmer/Backacter, £750.
 Liner 4ft. 6in. ROLLER PAN MIXER, Diesel, over-hauled, £225.
 Road Machines 14 cu. ft. Twin WEIGHBATCHER, £125.
 C.P.T. 3-tool Diesel COMPRESSOR, electric start, pneumatics, £450.
 C.P.T. 1-tool Diesel COMPRESSOR, Trailer, £200.
 Holman 2-tool Trailer COMPRESSOR, Dorman 2DL Engine, £275.
 Greens 8cwt. Vibrating ROLLER, 1959, water gear, £265.
 Sykes Sin. Portable PUMP, Diesel, 45,000 g.p.h., £325.
 Chasides Diesel ROPE SHOVEL, electric start, £275.
 Bray BL25 Crawler SHOVEL, 1 cu. yd., 1957, £1,450.
 Second-hand Concrete Mixers, all sizes, from £40.
WILLIAM R. SELWOOD, LTD.,
 Chandler's Ford, Hants. Phone 2981.

PLANT HIRE SERVICE (LONDON), LTD.

have the following Plant for HIRE:
EXCAVATORS—10RB, with Backacter, Skimmer, Face Shovel Equipments; 19RB, with Backacter, Skimmer, Face Shovel Equipments; 22RB, with Backacter, Skimmer, Face Shovel Equipments.
COMPRESSORS, 2-tool to 6-tool, Portable and Mobile, complete with accessories.
MIXERS—18/12 Benford, Weighgear and Shovel; 14/10 Stothert and Pitt; 10/7 Stothert and Pitt; 7/5 Liner; 5/3½ Liner; and 3/2 Liner.
SHOVELS—Droths ½ cu. yd. and 4-in-1 Equipments; Weatherill 1 cu. yd. and Chasides ½ cu. yd.
HOISTS—Ant Queen Swt. to 15cwt.; 1-ton Load-master.
DUMPERS—½ cu. yd. to 1 cu. yd. Johnson.
MISCELLANEOUS—1-ton to 3-ton Blocks and Tackle.
MONORAIL EQUIPMENT—Petrol Power Wagons, Trailers, 12ft. Track, Stands and 6ft. Curves.
PUMPS—2in. to 4in. Centrifugal and 4in. to 6in. Diaphragm.
TRACTORS—D4, D5, D9, with Dozer Equipments and Scraper Attachments.
CRANES—2-ton to 4-ton Portable, 3-ton to 25-ton Mobile, and 15cwt. Trench type.
PILING EQUIPMENT—35ft. to 50ft. Pile Frames, Woodfield; 40ft. to 65ft. Sykes Pile Frames; 35ft. Set of False Leaders; Drophammers and Pile Helms; McKiernan-Terry Hammers; Delmag Hammers; Winches of all types; Floating Craft.
 Telephone: Battersea 9218.

TOKEN FOR PLANT.

HIRE your EXCAVATORS, DOZERS and SCRAPERS, Dinkum Major DIGGERS and Drott SHOVELS, TREKERS, DUMPERS, ROLLERS, CONCRETE MIXERS, PUMPS, COMPRESSORS, RAMMERS, VIBRATORS, HOISTS, GENERATORS, etc., from **TOKEN CONSTRUCTION CO., LTD.**
 Station Rd., Thatcham, Berks. Tel.: THA. 3243-3370.
 Valmar Rd., Camberwell, S.E.5. Tel.: BRIXTON 5103.

WANTED TO BUY. Blaw Knox PF90 FINISHER, not older than three years, in very good condition.
 Lima 1201 EXCAVATOR.
METAL UNION (PLANT), LTD.,
 75 Victoria Street, London, S.W.1. Victoria 4868/9.

FOR SALE, New J.C.B. 4 EXCAVATOR, all attachments. Only 200 hours' working. Write or phone: **RICHARDSON, Avon Castle, Ringwood 4058, Hants.**

WANTED, D8, 14A or 15A, condition Immaterial. C. J. PRYOR, Harlow Common, Essex. Telephone: Potter Street 140.

Rapid expansion has created us Greater
 London's Largest Fleet Hirers of
1961 1 yd. "DROTT" SKID SHOVELS



Always available for Hire

Tel: THORnton Heath 3402 (5 lines)

POWER PLANT HIRE (Beddington) LTD.
 Beddington Lane, Croydon, Surrey

FOR IMMEDIATE SALE FROM OUR OWN STOCK.

THE FOLLOWING MACHINES:
 One Ruston 22RB TRANSIT CRANE, 23800 Series, new 1959, 10-ton chassis.
 One Smith Super 10 EXCAVATOR, 17900 Series, Gardner Diesel, Dragline Equipment.
 Severn Ruston 10RB EXCAVATORS, new 1903/54, Skimmer/Backacter or Dragline.
 Two International Drott SKID-SHOVELS, 4-4½ Bucket, new 1956.
 One Neal NM 2-ton CRANE, crawler mounted, 30ft. jib.
 One J.C.B. HYDRA-DIGGA/LOADALL 65, new 1961, Delmag G15 PILE FRAME, Petter Diesel, complete with Double Drum Winch.
 Two Atlas 2-tool Portable COMPRESSORS, Dorman Diesel, pneumatics.
 Two Atlas 2-tool Lorry-mounted COMPRESSORS, Ford chassis.
 One Set PLAIN BOGIES for 7-ton Derrick Crane.
 One Set PLAIN BOGIES for 10-ton Derrick Crane.
 One Reich E2 BLOCKMAKING MACHINE.
 Quantity of Frodingham No. 3 STEEL SHEET PILING, once driven, 48/50ft. lengths.
 Several 9 cu. ft. Circular Bottom Discharge CONCRETE SKIDS.
 The above Plant is available at competitive prices, and full details are available on request.
 We have a number of other items of Plant available, apart from the above, and will be pleased to send you a copy of our free Plant List on application.

Full details:
VALES PLANT REGISTER, LTD.,
 14 Lower Grosvenor Place, London, S.W.1.
 Tel.: VICTORIA 7531, 3501, 8080, 9886 (15 lines).

PLANT HIRE SERVICE (LONDON), LTD.

have the following Plant for SALE:
 One J.C.B. HYDRA-DIGGA/LOADALL 65, with Dozer Blades, two Backacter Buckets and Front Dozaloading Shovel, 7½ cu. yd., year 1958, price £1,300.
 One DALL HANDSCRAPER, powered by Lister Diesel Engine, complete with ropes, shovels and rollers, as new, price £145.
 Five 20cwt. Loadmaster HOISTS, powered by 164-lb. Lister Engines, F-2 complete with Hoopbeag Basegear, with 54ft. of 14ft. x 9in. Section Duplex Guides, Automatic Tipping Drum and Discharge Chute with safety gates, as new, price £375 each.
 One Columbus-Dixon POWER FLOAT, powered by 3.5-h.p. Petrol Engine, 24in. Flat Plate, 1000lb. roller wheels, carrying handle, grinding implement, front end extension, adjustable forks, as new, price £125.
 16in. and 18in. PILE HELMETS, price £37 10s. each.
 From Battersea and Essex Depots.
 Tel.: Battersea 9218; White Roding, Essex, 223.

FOR SALE, LOW-LOADING TRAILERS, from 3 tons to 12 tons: Lister-Air Pumps COMPRESSORS, equal to new, from £425; TANKERS, from 100 gals. to 950 gals.; GENERATING SETS, from 1½-hp. upwards, Diesel and Petrol driven; large stocks of ex M.O.S. Equipment. Send for lists.—S. T. MELTON (TRACTORS), LTD., Tower Road, Boston, Lincs. Phone 2590/2690.

WORKING in the Lancs. and Cheshire and Woolfenden's are your MOBILE CRANE people. Light or heavy Lorain, Michigan, Quikway, Neals. Lifts up to 30'—Woolfenden's.
Woolfenden's,
 Anfield, Liverpool, 4. Tel.: Stoneycroft 3785/9022.

FOR SALE, Hadfield and Jacks CONE CRUSHER No. 329, Size 6, Style A, 80 tons per hour, 2½-hp. down, in very good condition. Has not been used for last six years.—JOHN WILLIAMS AND CO. (GWRN QUARRIES), LTD., 4 Queen Street, Carnarvon. Telephone 7781.

FOR SALE, Chasides 700 SHOVEL, 1957, good machine, £800.
 Muir-Hill 55 LOADING SHOVEL, on Fordson 40 Tractor, registered 1956, well shod, £150.
 Write Box P.5213, "The Contract Journal."

FOR SALE, Choice of two Bristol Duplex LOADALL ANGLEDOZERS, 1960 models, in as new condition, guaranteed, £1,250 each.—H. A. SAUNDERS, LTD., 14-20 The Butts, Worcester. Tel.: Worcester 26651.

RANSOMES and RAPIER 410 EXCAVATOR, with Perkins P4 Diesel Engine, Skimmer and Backacter Equipment, in good working order, 665 L. W. VASS, LTD., Amptill, Bedford. Telephone: Amptill 3255.

SHAWNEE POOLE DUMP TRUCKS FOR HIRE

We operate the largest hire fleet of these machines in England; consult us for all your requirements.

Our hire fleet also includes D.8's, D.7's, D.4's with Scrapers, Drott Shovels, Excavators all sizes, Cat. 977 Tractors and 25 ton Low Loaders.

PLANT HIRE OR CONTRACT

IRVING AINSWORTH (MORLEY) LTD.
MORLEY Nr. LEEDS
 Phone 1: MORLEY 1800-1-2

ASPHALT PLANT FOR SALE COMPRISING

MILLARS 12-15 tons/hour UNIT WITH ADDITIONAL DRIER AND BITUMEN TANK.

PLANT IN FIRST CLASS ORDER. AT PRESENT WORKING AT SKEGNESS WHERE IT MAY BE SEEN BY APPOINTMENT.

Further details from:

LEHANE MACKENZIE & SHAND LTD.
WINTHORPE AVENUE, SKEGNESS Phone: SKEGNESS 1513

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

ELLIOTT BROS. (WORTLEY), LTD.
N.C.K. 304, Backacter, Thornycroft NR6 Engine, former property of Corporation, £2,600.
Ruston 21, 3 yd. Dragline or Crane, £1,100.
10RB, any equipment, VRON 3-cyl. (hand start), £600.
10RB, any equipment, VRON 3-cyl. (elec. start), £650.
N.C.H. 12 yd. DRAGLINE CRANE, Backacter or Face Shovel available, £450.
Ransomes and Rapier 423, Dragline, £650.
8-ton ROLLER, Barford-Perkins, £550.
Smith 2/10s, any equipment, choice of six, £200-£500.
Caterpillar D6, 3-cyl. Cable Angledozer, £600.
Fiat 55L, Angledozer and Winch, £600.
MULEDOZER, Fordson 4D, Hydraulic, Cab, lights, etc., £300.
24 x 14 FOSTER CRUSHER, automatic lubrication, £500.
Heavy Duty SCREEN to fit above, 8ft. x 4ft. (2-deck), with motor, £450.
J.C.B. Mk. 1, £500.
Two 1 yd. and 1 1/2 yd. Self-dumping GRABS, £200 each.
MEADOWS DIESEL ENGINE, 6-cyl., seen running, £150.
A.E.C. DIESEL ENGINE, 6-cyl., seen running, £100.
LEYLAND DIESEL ENGINE, 6-cyl., £100.
14/10 Blaw Knox Diesel High-discharge MIXER, £100.
Coapy CONCRETE PLACER, with Pipeline and Compressed Air Cylinder and Discharge Box, £1,000.
Fowler Challenger D/D WINCH, £90.
Sulzer 4 stage 6in. PUMP, electric, £120.
Simplex 24in. Diesel LOCO., £175.
All Smith 2/10 SPARES and EQUIPMENTS.
Drott TEETH, 30s. each.
35-32 and 16RB FACE SHOVEL EQUIPMENTS.
N.C.K. SPROCKETS, DOGS and TRUCK FRAME.
Fowler Challenger III and VF SPARES.
Caterpillar D6 3-cyl. SPARES.
All machines in full working order, and can be tried at these works.
Glen Works, Deencar, near Sheffield.
Telephone: Stocksbridge 3276.
Deepcar is six miles west of Sheffield, on A.616 (Woodhead Road).

FOR SALE, 1961 Massey-Ferguson 702 Tractor
DIGGER SHOVEL, with Cabs, excellent condition. Can be seen working. £1,650.—BROWNS INDUSTRIAL EQUIPMENT, LTD., Leighton Buzzard, Beds. Telephone 2062/3/4/5 (4 lines).

JOHN DEERE 1 cu. yd. CRAWLER LOADERS
available. LONG or SHORT HIRE. Keen rates. RINGWAY CONTRACTORS, LTD., Rawdon 2181.

WANTED, Caterpillar 955H TRAXCAVATORS.
Write Box P.5234, "The Contract Journal."

FOR SALE
TEAM OF FOUR EUCLID 21 cu. yd. MOTOR SCRAPERS with CAT. D9 PUSHER. All in first class condition.
GEORGE SHEPPARD CONSTRUCTION LTD., RYMER LANE • BARNHAM • THETFORD • NORFOLK
Tel: Elveden 91 to 95

"CAUDLE" LTD. Hire or Sale

MOBILE CRANES
D.7 TRACTORS with DOZERS
LINKBELT L.S.90 3/4 yd. DRAGLINE
TD.18 with HYDRAULIC ANGLE DOZER
ONIONS 9 yd. SCRAPERS
MORRIS VERSATILE 5 ton CRANE
10 R.B. EXCAVATORS
CATERPILLAR D.4 ANGLE DOZERS
MOBILE SITE OFFICE
FORD DIESEL 7 ton LORRIES
4 yd. LE TOURNEAU SCRAPER

**Coventry Road • Sheldon
Birmingham 26.**

TELEPHONE: SHELDON 5171 (5 lines)

PLANT FOR SALE.
Seven Stothert and Pitt 7/5 MIXERS, with 5/1 Lister Diesel Engines. Extremely clean machines, from £50 each. Various other machines.
One Sykes 4in. WATER PUMP, with Ruston 2VSH Engine, complete with Hoses, £175.
25/30cwt. FOOTPATH ROLLER, by Dixon Hawksworth, Ltd., powered by Ford 10 Engine, 1957 machine, Sprinklers, etc., £225.
One C.P.T. MOBILE COMPRESSOR, Ruston Engine, 110 cub., 3VSH, £150.
Chasemide 12 yd. Rope SHOVEL, P6 Diesel, 1200 x 24 twin rears, 1951 machine, in 100 per cent. working order, £225 o.n.o.
Platypus CRAWLER DOZER, Perkins P4 Diesel Engine, complete with cab, good working order, £295.
Two 15cwt. MOBILE HOISTS, by British Hoist and Crane Co., Petter AVA1 Diesel Engine, Reconditioned, £75 each.
David Brown TRACTOR UNIT, on pneumatic tyres, fitted Power Logging Winch, £195.
Aveling-Barford 4-ton Diesel L4 ROAD ROLLER, ex Ministry, very good condition, £525.
One D6 Caterpillar ANGLEDOZER, 3-cyl. engine, ex Ministry. Cheap to clear.
One D4 Caterpillar ANGLEDOZER, 1951 machine, complete with Winch, etc., in 1956 condition. 4-wheeled MOBILE SITE OFFICES, some complete with drawing table, etc. Would be a credit to any site, from £75 each.
Bristol 22 DOZER, reconditioned P3 Engine. Machine completely overhauled, track and blade in very good condition.

G. H. DUNNING.
Ballards Yard, High Street, Edgware 2572.
Open week-ends.

CONTRACTORS' PLANT FOR HIRE.
EXCAVATORS, TRAXCAVATORS, BULLDOZERS, 7-ton Diesel ROLLER, MONORAIL TRANSPORTER EQUIPMENT, VIBRATORY ROLLERS, COMPRESSORS, MIXERS, PUMPS, etc.—Plant Dept., WM. TOWNSON AND SONS, LTD., Higher Swan Lane, Bolton. Tel: Bolton 62121.

FOR SALE (due to completion of contract), 54RB.
Can be seen working N.E. England, 22000 Series. Dual Equipped Dragline, F/5. Carefully used and well maintained.—Apply ALFRED GOLIGHTLY AND SONS, LTD., Bishop-Middleham, Co. Durham. Tel: Coxhoe 333.

MOBILE CRANES FOR SALE, HIRE AND SPARES.
Coles, Ransomes, Morris, etc.—ROBERT DIXON, LTD., Authorised Coles Repairers, Hunsdon, Herts. Telephone: Standstead Abbots 301/3.

BEN TURNER & SON (TRACTORS) LTD.

FOR SALES, SERVICE
AND HIRE



MASSEY-FERGUSON INDUSTRIAL EQUIPMENT

PHONE:
RIPLEY (SURREY) 2481/2

FOR SALE—JUBILEE TRACK: Side/End-Turnover WAGONS, FLAT BODIES, JIMCROWS, CROW BARS, ROADFORMS, 3in. M.S. BARS, Octagon JUMPER DRILLS, 4ft. 6in. x 1 1/2in. A/H. Cylinders SOLID STONE DRILLS, 5ft. 5-ton JACKS: TURN ALL BENDERS: CHAIN BLOCKS: GRIPS: FIRING MACHINES: Scissor Type LIFTING GRIPS: STEEL SHAFTS, 7 1/2ft. x 1 1/2in.; Galvanised CONTINUOUS PLATES, grooved three oval holes, with Bolts: 24in. M.S. Flat RAIL DRILLING BITS: 200 CATERPILLAR ADJUSTABLE JACKS: 40 Pairs STEEL WHEELS: AXLES, 36in. gauge; 12 LIGHT RAILWAY CROSSINGS: 24in. gauge, 30lb. rails, 18ft. long; One Modern Heavy Cast-Iron Ball-bearing TURNABLE, runs on top plate 2ft. and 3ft. gauges.—JAMES H. WILLIAMS, 4 Dock Chambers, Cardiff. Telephone 31752.

D9, D8, TD18 and TD14 BULLDOZERS and Tipper for HIRE or SUB-CONTRACT WORK. Particular attention given to finish and completion. New and modern machines in first-class condition. Good operators. Technical staff available to analyse programme and price complex projects.

DICK HAMPTON
Broadview Farm, Blacknest, Alton, Hants.
Telephone: Bentley 3241.

FOR SALE from our own stock—Lima 2400, with 120ft. Dragline Boom, 7 yd. Bucket, driven by Caterpillar Diesel D397 Engine. This machine was new in May, 1959, and is one of the latest to come into this country, and has only been worked by a buyer who requires a machine of this size, and is not looking for the cheapest machine, but the best at a fair price.—PLANT SALES, LTD., 25 Castleknock Street, W.1. Paddington 2663.

FOR SALE—New and used Bristol D9a Shovels and Trench Diggers.—Demonstrations without obligation from the Main Dealers, H. A. SAUNDERS, LTD., 14-20 The Butts, Worcester. Telephone 26461.

FOR SALE, Small WASHING AND GRADING PLANT, comprising Drum, Dewaterer, Conveyor and Hopper, Diesel driven.—Offers to H. BRADLEY, LTD., Ware 2151.

FOR SALE, Two Muir-Hill DUMPERS, L.V.D. 1 cu. yd., good condition, £65 each.—L.V.D., LTD., Chevet Works, Wakefield. Tel: Royston (Yorks) 216.

CHESHIRE HIGHWAY BORER. Long- or short-term HIRE.—ESCAV FENCING CONTRACTORS, LTD., Enfield 9685.

FOR SALE
Lima 2400 EXCAVATORS, with Dragline and Forward Shovel. Choice of four.
Marion 111M EXCAVATORS. Choice of two.
Lima 1201 EXCAVATORS. Choice of two.
Ruston 100B EXCAVATOR, Diesel/Electric.
All machines in excellent condition, may be seen working, and are open to any inspection and trial. Immediate delivery.
Call, write or phone:
A.R.C. MOTOR CO., LTD.,
Redhill Works, Arnold, Nottingham. Tel. 26-5331/3

FOR HIRE

SIDEBOOM TRACTORS

TRACTORS:
HD7, HD10, HD14, Dozer or Scraper.
D4, D6, D8, Dozer or Scraper.

TRACTO-SHOVELS:
HD5G, with 1 1/4 cu. yd. Bucket.
HD9G, with 2 1/4 cu. yd. Bucket.

EXCAVATORS:
10RB, 19RB, all equipments.
J.C.B. Hydra-Digga, all equipments.

DUMPERS:
Aveling, 4 1/2 cu. yd.
Rob Roy, 15cwt.

ROLLERS:
5-ton and 8-ton, Diesel.

CRANES:
5-ton and 10-ton, lorry-mounted.
30-60ft. jibs.

PUMPS:
3in. L. and F. Diaphragm.
3in. Centrifugal.

MIXERS:
5/3 1/2, 7/5, 10/7, 14/10.

TIPPING LORRIES:
Austin 6 x 4.

All inquiries to:

G. CARTER & SONS, LTD.
YOKESFORD HILL, ROMSEY, HANTS.
Telephone: Braishield 395/6/7.

hire your plant from



6 CWT. TO 10 TONS

MOSS
CAMBRIDGE LTD.

146 HILLS ROAD

Cambridge

TELEPHONE 47296-7

MODERN DIESEL ROLLERS
AND DIESEL COMPRESSORS
EXCAVATORS AND BULLDOZERS
DUMPERS, MIXERS, PUMPS, ETC.



DIESEL COMPRESSOR
105 TO 600 C.F.M.

Prompt
Delivery

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

GRAYSTON PLANT AND ENGINEERING CO., LTD.

From our own stock we offer for SALE the following:

E1339—10RB EXCAVATOR, 11600 Series, with Skimmer, rebuilt, £1,175.

E1337—19RB EXCAVATOR, 20000 Series, with Dragline, £3,400.

E1370—19RB EXCAVATOR, 17000 Series, with Skimmer Backer, £2,725.

OP.234—22RB EXCAVATOR, 22000 Series, Dragline Equipment, £4,600.

E1385—22RB EXCAVATOR, 18000 Series, with Dragline Equipment, £3,725.

OP.234—N.C.K. 304 EXCAVATOR, 1700 Series, long and wide tracks, Dragline Equipment, £2,625.

OP.350—N.C.K. 304 EXCAVATOR, fully crane rigged, £2,450.

OP.252—N.C.K. 304 EXCAVATOR, 1511 Series, Dragline Equipment, A.E.C. Diesel, £2,450.

E1384—N.C.K. 304 EXCAVATOR, 31100 Series, with F/S Equipment, £3,000.

E1371—N.C.K. 405 EXCAVATOR, new 1960, Dragline Equipment, Dorman Diesel, Price on application.

E1366—Smith 21 EXCAVATOR, new 1956, F/S Equipment, Gardner Diesel, £3,300.

E1331—24RB EXCAVATOR, 18500 Series, with Dragline Equipment, £3,250.

E1351—33RB EXCAVATOR, 4800 Series, Dragline Equipment, £1,975.

E1339—37RB EXCAVATOR, 7500 Series, Dragline Equipment, £4,400.

OP.340—43RB EXCAVATOR, 4000 Series, Dragline Equipment, late type engine, very good condition, £3,000.

E1286—54RB EXCAVATOR, 22300 Series, with Dragline, £16,750.

D.174—Three Shawnee Poole REAR DUMPS, new 1960, £1,600 each.

E1004—Fowler Challenger Mk. 3 TRACTOR, with Side Boom Crane, £2,350.

E1346—Michigan Models 175A and 75A Tractor SHOVELS, spare wheel and Cab. Price on application.

E1049—1-ton Anderson-Grice 120ft. Jib Electric DERRICK CRANE, £3,450.

E1048—1-ton Butters 120ft. Jib Electric DERRICK CRANE, £3,950.

E1065—Morris 4½-ton Diesel/Electric MOBILE CRANE, 15ft. jib, £495.

E1057—6-ton Crawler CRANE, Type QMC, 45ft. jib, Ruston Diesel, £1,550.

E1072—Neals 6-ton MOBILE CRANE, Type QMC, 80ft. jib, Ruston Diesel, new 1956, £2,850.

OP.255—Neals 6-ton MOBILE CRANE, Type QM, 50ft. jib, and 12ft. Fly, Ruston Diesel, S.L.I., new 1955, £2,975.

E1031—Pingo P18 Rail-mounted TOWER CRANE, new 1960, £3,000.

R.174—8½-ton Avelling-Barford TANDEM ROLLER, new 1956, very good condition, £1,500.

OP.248—10½-ton Wallis and Stevens ROLLER, National Diesel Engine, Canopy, Scarifier and Sprinklers, £625.

OP.226—33RB FACE SHOVEL EQUIPMENT, £800.

OP.246—C.P.T. 125 c.f.m. COMPRESSORS, Caterpillar D4 Diesel Engines, £225 each.

OP.251—C.P.T. 210 c.f.m. COMPRESSORS, Ruston 4VHR Diesel Engines, from £275 each.

OP.232—C.P.T. 500 c.f.m. COMPRESSOR, Ruston 6VPH Diesel, pneumatics, £725.

D.177—Several 9.7 cu. yd. Euclid REAR DUMP TRUCKS, £1,750 each.

OP.247—Johnson 1 cu. yd. DUMPER, Petter Diesel, £175.

OP.599—Several 20-ton and 30-ton PORTA-SILOES, in good serviceable condition. Price on application.

GRAYSTON PLANT AND ENGINEERING CO., LTD., 32 Stewards Road, London, S.W.8.
Tel.: Macaulay 6688 (10 lines).

FOR SALE.

One Metropolitan-Vickers Paradine Double Operator WELDING PLANT, powered by P6 Diesel Engine.

One Lincoln Single Operator WELDING PLANT.

One T250 Portable Air COMPRESSOR.

Also New J.C.B. 4 EXCAVATORS for HIRE.

THE MANCHESTER PLANT EQUIPMENT SERVICE, LTD., Rutland Street, Middleton. Tel.: MID 5092.

FOR SALE. surplus to our requirements, in good working order, with choice of Equipments: One 10RB, 14000 Series; One 10RB, 15000 Series, £850 each.—Apply CONNELL AND FINNIGAN, 40 Molyneux Street, Manchester, 13. Tel.: ARDWICK 2523.

STEEL SHEET PILES, TRENCH SHEETS and PROPS URGENTLY WANTED. All sections bought, large and small quantities. Immediate payment.

DUDLEY VALE, LTD., 9 Palace Street, London, S.W.1. Tel.: VICTORIA 0252.

FOR SALE. Benford 10/7 Model RF CONCRETE MIXER, with Lister Diesel Engine, excellent condition.—A. J. WARD AND SONS, LTD., Staines 4111.

Shawnee Pooles

FOR HIRE

TENET CONSTRUCTION CO.
14 LONGSIGHT LANE, CHEADLE HULME, CHES.
Telephone Hulme Hall 1906

ERNEST DOE AND SONS, LIMITED.

All the machines shown in this advertisement are our own property and can be seen either at Ulting or Croydon, or demonstrated on your own site. They are all honest working tools, the best of their kind in their price range.

1955 J.C.B. DIGGER, two Buckets, Front Shovel, overhauled, warranted, £850.

1955 J.C.B. DIGGER, 24in. Bucket, Counterweight, £450.

1958 J.C.B. Hydra-Digga, with Dozalode Front Shovel, £1,250.

1958 J.C.B. Hydra-Digga/Loadall 65, two Buckets, rebuilt, warranted, £1,750.

1959 J.C.B. Hydra-Digga/Loadall 65, two Buckets, overhauled throughout, £1,850.

1960 J.C.B. 4, with 7½ cu. yd. Front Shovel, £1,950, plus Buckets.

1961 J.C.B. 4, demonstration machine, £2,550, plus Buckets.

New J.C.B. 4 Hydraulic EXCAVATOR, two-lever, £2,840, plus Buckets.

1955 Dinkum DIGGER, with Bucket and Front Shovel, ex works, £495.

1955 Dinkum DIGGER, two Buckets and Front Shovel, rebuilt, guaranteed, £750.

Fowler VF, with Bray Angledozer, very good tracks, £350.

Air Pumps 2-tool COMPRESSOR, on pneumatics, Dorman Diesel Engine, good order, £350.

Air Pumps COMPRESSOR, similar to above but needing repairs, £145.

G.F. 1½ cu. yd. Diesel DUMPER, 4-wheel, good order, £285.

1959 Rotary Hoe Super TRENCHER, as come from work, £1,000.

1955 Standard Rotary Hoe TRENCHER, straight from work, £475.

Thwaites 15cwt. DUMPER, Petter Diesel Engine, all in good order, £1,110.

1960 J.C.B. 303 7½ cu. yd. Hydraulic LOADING SHOVEL, as new, £1,350.

1959 Chasidase 800TC Hydraulic LOADING SHOVEL, £1,450.

1958 Thwaites 1-ton Orion Diesel DUMPER, overhauled, £310.

Stothert and Pitt 10/7 MIXER, £65.

International B250 TRACTOR, with Hydraulic Front Loader, £450.

Bray BL30 1 cu. yd. Hydraulic LOADING SHOVEL, overhauled, £1,050.

1957 Bray BL25 Crawler LOADING SHOVEL, overhauled, £1,850.

Onions No. 12 C.C.U. Double Drum Cable WINCH, new condition, £250.

Le Tourneau Double Drum WINCH for D4, £150.

Buckeye Double Drum WINCH, £75.

Blaw Knox 4 cu. yd. SCRAPER, in good order, £285.

Onions 6yd. Empire SCRAPER, very good order, £395.

Drayton 3-wheel DUMPER, ideal for confined spaces, £75.

1958 Ferguson 35 Diesel TRACTOR, with Shawnee Heavy Duty Front Loader, £550.

1959 J.C.B. Loadall 75, 7½ cu. yd. Hydraulic Loading Shovel, with Crowd Action Bucket, £1,250.

ERNEST DOE AND SONS, LTD.,
Industrial Division, Ulting, Essex.
(Hathfield Ferial 311; (night) 3119)
Therapia Lane, Mitcham Road, Croydon, Surrey
(Thornton Heath 4844 and 4095).

FOR SALE.

Four Avelling-Barford 4½-yd. DUMPERS, £1,000.

TD9 TRACTOR, Hydraulic Dozer Unit and Trailer, £500.

TD9 TRACTOR, wide gauge, Carco Winch, £400.

Bray Hydraulic LOADING SHOVEL, £325.

Coles 5-ton Diesel YARD CRANE, £800.

14RB EXCAVATOR DRAGLINE, £450.

County Crawler TRACTOR and Dozer, £450.

DB30 TRACTOR and Dozer, £400.

19RB JURY JIB, £50.

19RB COUNTERWEIGHT, £50.

Williams 5/8HD DRAGLINE BUCKET, £100.

Smith Super 10 TRENCH BUCKET, £50.

19RB Double Rope SHOVEL LAGGINGS, £30.

N.C.K. 304 TRACKS, reconditioned, £375.

19RB TRACKS, reconditioned, £160.

Smith 8 TRACKS, unused, £100.

HOLLAND PLANT, LTD., Otley, Yorkshire. Tel. 2940.

WANTED.—Crawler TRACTORS, BULLDOZERS, EXCAVATORS, DIGGERS, ROAD ROLLERS, LOW-LOADERS, etc. Prompt cash and collect.—Offers to ROBIN BOSWORTH, Ludlow, Shropshire. Tel.: Stoke St. Milbore 237.

FOR SALE. 54RB DRAGLINE, 22000 Series, on long and wide tracks.—PLANT SALES, LTD., 25 Castlereagh Street, London, W.1. Tel.: Paddington 2663/5.

WANTED for Lima 2400, TRACK PADS, in good condition. Would consider set of tracks complete. Write Box P.5175, "The Contract Journal."

SLOGGETTS PLANT HIRE.—For DINKUM DIGGERs, modern machines.—2 Burtons Road, Hampton Hill, Middx. Tel.: Teddington Lock 1138/9.

CUB V EXCAVATOR, Dragline and Backer Equipment, absolutely as new, £1,850.
Write Box P.5212, "The Contract Journal."

COMPRESSOR HIRE

2-6 Tool Portable and Mobile

A. J. TYLER & CO.
HARROW & HAYES, MIDDX.
UNDERHILL 1515

NEAGRON (CONSTRUCTION), LTD.

OFFER FOR SALE:

Two BROOMWADE HEAVY BREAKERS, Model RB10; three BROOMWADE LIGHT PICKS, 22 STEELS; 20 PICK POINTS; CLAY SPADE ENDS, etc.; eight 50ft. HOSES (two new). All in very good condition, £75 the lot.

JONES KL44 3¼-ton capacity MOBILE CRANES, fitted 30/50ft. Lattice jibs, 10ft. Fly jib if required, Ruston 2VSH Diesel Engines, crawler tracks. Ex our hire fleet. Good condition. New 1951 and 1953.

COLES 5-ton capacity Long-wheelbase Lorry-mounted CRANE, Mk. 7, Series VII, new 40ft. Cantilever jib, fitted Cab, Thornycroft chassis, Crane Engine Gardner 4LW. Good working condition. New 1944. £2,650.

BLAW KNOX Batchmaster 21 cu. yd. Mobile BATCHING PLANT, Three-compartment Weighing Hopper, pneumatic tyres. New 1954.

BRISTOWE 250-gallon No. 12 Power operated EMULSION TARSPRAYER, New 1954.

MILLARS Dual Purpose Semi-portable ASPHALT PLANT, 10 tons per hour.

INGERSOLL-RAND 600 c.f.m. Rotary COMPRESSOR, New 1955.

NEALS Model NMC 2-ton MOBILE CRANE, 25ft. jib, 5ft. and 10ft. Fly jibs, Ruston 2VTH Diesel Engine, crawler mounted. New 1953.

JONES KL44 3¼-ton MOBILE CRANE, 40ft. Swan Neck jib, Ruston 2VSH Diesel Engine, pneumatic tyres and restrictor rings. New 1954.

SMITH Model ME 15-ton Lorry-mounted CRANE, 80ft. jib and Fly, Gardner SLW Diesel Engine. New 1956.

PINGON Model P10/617 and P25 28½cwt. and 2½-ton TOWER CRANES, Saddle jibs. New 1959.

BUILDMASTER Model BDK150 3-ton TOWER CRANE, Overhauled. New 1954.

LIEBHERR Model 50HB 4-ton Climbing TOWER CRANE, 98ft. 6in. Hydraulic Luffing jib. New 1959.

19RB EXCAVATOR, 40ft. Dragline and Grab, reconditioned engine. New 1955.

22RB EXCAVATOR, Skimmer, Backer and Dragline. New 1953.

54RB 2½-yd. EXCAVATOR, Face Shovel Equipment. New 1958.

BENFORD 18/12 CONCRETE MIXER, Weighgear and Hand Scraper, Petter Diesel Engine. New 1958.

BLAW KNOX 21/14 CONCRETE MIXER, Petter AV2 Diesel Engine, steel wheels. Overhauled. New 1957.

£200.

PORTA-SILOES 20-ton and 30-ton CEMENT CONTAINERS. New 1957 and 1958.

ACROW Sit. x 2ft. Mk. V FORM PANELS, with Ply, 8ft. Support Beams, 5ft. Filler Channels, Make-up Supports.

ROAD MACHINES MONORAIL POWER WAGONS and Trailer, Rails, Guards, Points, etc.

PUMPCRETE PC4 4in. CONCRETE PUMP, 550ft. of Piping, electrically operated. New 1959.

DELMAG DS and D12 PILING HAMMERS, with Hanging Leaders.

SYKES Model XPL 30ft. All-steel PILE FRAME plus three Extensions, 1-in-4 Batter Gear, 2-ton Drop-hammer, Sykes 7½. New 1959.

GALION Type 603 GRADERS, New 1956.

REICH Model 600 6¼ Mobile DRILLING RIGS. New 1955/58.

EUCLID B6 and Euclid B1TD 9.7 15-ton and 22-ton REAR DUMP TRUCKS, Leyland and Rolls Diesel Engines.

EUCLID Motorised SCRAPER, Model TS24, 24 cu. yd. capacity, two Cummins Diesel Engines, excellent condition throughout.

STOTHERT AND PITT Vibratory COMPACTOR AND FINISHER, 20ft. Beam, Diesel powered. New 1954.

HARBORMASTER 60-h.p. MARINE PROPULSION UNIT, Model 60HMR, Meadows Diesel Engine, propeller stem 7ft. Demonstration. As new.

ALLEN-PARSONS 16/60 TRENCHER, Overhauled. New 1953.

Approx. 3,000 12ft. TRENCH SHEETS, as new, 3s. 8d. per sq. ft. Lying London.

New KINGSLAND 1½in. and 2in. Diesel and Electric BAR CROPPERS available ex stock, Doganham Depot.

New NEAGRON TRENCH SHEETS, 13in. wide, 6¼ft. long, 8½lb. per foot run, available ex stock, 4s. 2d. per sq. ft. delivered.

Agents and Stockists for new WOODS ELECTRICALLY OPERATED PROPANE HEATERS.

All types of Crane and Excavator jibs fabricated to order.

Further details:
Abbey House, Victoria Street, London, S.W.1
Telephone: ABBEY 5152, Sullivan 7626 (10 lines).

WANTED. DRAGLINE EQUIPMENT, or CRANE jib and Derricking Gear to fit 1954 Priestman Panther.—JOS. C. CHAPMAN AND SONS (TIMBER), LTD., 26 Chester Park Road, Fishponds, Bristol. Tel. 654394.

FOR SALE. Caterpillar D4 ANGLEDROZER, 2T2394, C.P.C. Dozing Equipment, cat. inspected working, £600.—OWEN PUGH AND CO., LTD., Dudley, Northumberland. Tel.: Dudley 315.

FOR HIRE**All Contractors' Plant**

SLOGGETTS (ENGINEERING)
CO. LTD.

HAMPTON HILL, MIDDX. Teddington Lock 1138/9

Tower Crane Services offer used cranes of high quality. A RANGE OF 60 MACHINES for sale and 15 machines for hire

Contact us also for: "Lite" weight Skips, Metric size nuts and bolts,

Dismantling devices, Erection & services

Tower Crane Services for the tower crane user
BENHAMS HOUSE, HORLEY ROW, SURREY • Telephone: HORLEY 1147

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

R. CRIPPS AND CO., LTD., offer the following selection of Used Plant and Machinery for immediate SALE:

International TD24 TRACTOR, with Front Winch operated Cable Bullgrader and Rear Onions 18 C.C.U. Fully overhauled, with rebuilt engine. Guaranteed. £4,500.

International TD9 TRACTOR, 92 Series, with Drott 1½ cu. yd. 4-in-1 Equipment, 1960 machine, in as new condition, £5,000.

International BTD6 Drott SKID-SHOVEL, with 1 cu. yd. Standard Bucket, track gear extensively overhauled, good engine, £1,950.

International BTD6 Drott SKID-SHOVEL, with 4-in-1 Bucket, extensively overhauled, particularly in track running gear, 1959 machine, £2,250.

International BTD6 Drott SKID-SHOVEL, with 1 cu. yd. Standard Bucket, reconditioned, repainted and guaranteed, £2,400.

International BTD6 Drott SKID-SHOVEL, with 4-in-1 Equipment, fully reconditioned, repainted and guaranteed, £2,800.

J.C.B. EXCAVATOR, in immaculate condition, with Rear Trencher and Front Shovel, first-class machine, £1,500.

J.C.B. EXCAVATOR, with Rear-mounted Trencher and Front Counterweight, £2,750.

Bristol OVERLOADER, with Rear-mounted Dowty Pump and Rear Trencher, in good working order, £650.

Further particulars, or inspection at your convenience, can be arranged through our depots as listed: Nottingham (Tel. 71161); Manchester (Tel.: Trafford Park 1658); Shildon (Co. Durham) (Tel. 261).

DUDLEY VALE LTD.

19RB EXCAVATOR, with Dragline and Skimmer Equipment.

5-ton Butters Electric SCOTCH DERRICK, 120ft. Jib, with Bogies.

10-ton 2-motor Electric DERRICK, with 120ft. Jib and Bogies, new 1958.

Ruston DIESEL LOCO., 2ft. gauge, 25/30-h.p. K144 MOBILE CRANE, 24ft. Jib, pneumatics.

Two Stothert and Pitt 54T Vibrating ROLLERS, Petter Diesel Engine.

Sykes No. 72a and No. 8 Double Drum PILING WINCHES, each powered by Ruston Diesel Engine.

Larsen and Appleby-Frodingham STEEL SHEET PILES, 1, 2, 3 and 4 Sections.

Four Johnson 1½ cu. yd. Diesel DUMPERS.

Two Neals NM 2-ton MOBILE CRANES, 25/35ft. Jib, pneumatics.

SKIMMER EQUIPMENT complete for 19RB Excavator.

DUDLEY VALE, LTD.

9 Palace Street, London, S.W.1. Tel.: VICTORIA 0252.

AVAILABLE FOR IMMEDIATE SALE.

Two 7-ton Anderson-Grice Double Drum 2-motor Electric DERRICK CRANES, 120ft. Jibs, new 1949 and 1954.

One Coles 12½-ton Self-propelled MOBILE CRANE, 80ft. Jib, on pneumatics, Ford Diesel, good condition.

Prices and full details on application to:

VALES PLANT REGISTER, LTD.

14 Lower Grosvenor Place, London, S.W.1.

Tel.: VICTORIA 7531, 3501, 8080, 9886 (15 lines).

FOR SALE OR HIRE. 10/7 Rex Closed Drum CONCRETE MIXER, complete with Built-in Weigher. Excellent condition. — **W. V. DAVIES.** Concrete Mixer Service, Shipston-on-Stour 525 & 612.

FOR SALE. County CRAWLER, 4D Diesel, with Bray Hydraulic Dozer. Farm use only. Excellent condition. — **SOUTH MIDLANDS ENGINEERS,** Shipston-on-Stour 612 and 624.

FOR SALE. 3-ton Hand DERRICK, 50ft. Jib. Butters make.

Write Box P.5058, "The Contract Journal."

CHASESIDE LOADMASTER 500

two years old, original paint, open to any inspection, £975—or would PART EXCHANGE for LORRY-MOUNTED CRANE, preferably American manufacture.

CARRUTHERS OF CURRUTHERSTOWN.
Near Dumfries (233).

FOR HIRE

Rollers 2½-10 Ton
Barber-Greene and Blaw Knox Finishers

Bristol Duplex
Mobile Compressors
General Contractors' Plant

HAULAGE BY OUR OWN LOW LOADER
CAN BE ARRANGED AT COMPETITIVE PRICES

ENQUIRIES INVITED

WILLIAM F. REES LTD.

Plant Department

MARLPIT LANE, COULSDON, SURREY

Telephone: Uplands 5302 & 9434

THE CHEAPEST EXCAVATORS in the country are available from **AXWORTHY**:

10RB, several available, any equipment. From £500 each.

19RB, from 5000 to 21000 Series, any equipment. From £1,300 each.

22RB, from 15000 to 24000 Series, any equipment. From £3,650 each.

24RB, from 5000 to 8000 Series, Shovel or Dragline. From £1,500 each.

24RB, 6000 Series, base machine, £600.

33RB, from 5000 to 14000 Series, Shovel or Dragline. From £2,950 each.

37RB, from 2000 to 9000 Series, Shovel or Dragline. From £2,750 each.

38RB, from 19000 Series, Shovel or Dragline. From £8,000 each.

43RB, from 4000 to 14000 Series, Shovel or Dragline. From £3,500 each.

54RB, from 9000 to 22000 Series, Shovel or Dragline or base. From £9,000 to £18,000 each.

54RB, 14000 Series, base machine, £6,000.

110RB, new 1957/59, Face Shovel. From £30,000 each.

Priestman Cub, from pre-war to Mk. V, all equipments. From £200 each.

Priestman Wolf, from 1940 to 111A and 111B, all equipments. From £250 each.

Priestman Tiger, from A7000 to A9000 Series, any equipment. From £2,250 each.

Priestman Panther, from 1936 to 1953, Dragline. From £250 each.

N.C.K. 304, from 1600 Series to 31000 Series, Shovel or Dragline. From £2,500 each.

N.C.K. 405 (two available), new 1959, Crane or Dragline.

N.C.K. 605, new 1957, Crane or Dragline, £13,750.

Smith 21, 13000 Series, Backacter. Offers.

Smith 21, new 1954, any equipment. Offers.

Ransomes-Rapier 410, various machines. From £300 each.

Ransomes-Rapier 423, from 1946, Shovel or Dragline. From £600 each.

Ransomes-Rapier 424, new 1954/55, any equipment. From £2,250 each.

Ransomes-Rapier 440, from 1952, Dragline or Crane. From £1,500 each.

Lima 802, 1201 and 2400, from 1948, Dragline, Crane or Face Shovel.

Marion 33M and 111M, from 1944, Dragline or Face Shovel.

P. and H. 255A, 955A and 1055, from 1948, Dragline, Crane and Face Shovel.

North West 80D, 4000 Series, Face Shovel and Dragline.

Manitowoc 3000, 3000 Series, Dragline/Crane.

Manitowoc 2000, new 1950, Dragline/Crane, 20-tons.

Ransomes-Rapier 424 DRAGLINE, complete, £325.

24RB DRAGLINE, complete, £275.

Lima 802 FACE SHOVEL, high lift or standard, £600.

AXWORTHY AND COMPANY, LTD.

(Drofts for Hire),
Straight Road, Old Windsor, Berks.
Telephone: Windsor 3434 or 3384.
Telegrams: Axworthy, Windsor.

FOR SALE OR HIRE. 50cwt. Aveling-Barford ROLLER, registered 1945, overhauled, £160 o.n.o. **FISHER AND MORDECAI,** 39 Coronation Crescent, Frenchwood, Preston, Lancs.

FOR SALE. 3-ton Hand DERRICK, 55ft. Jib, by Butters.

Write Box P.5059, "The Contract Journal."

AVAILABLE FOR HIRE AND CONTRACT: D9 and D8 TRACTORS, with Blade or Scraper—**ELLIOTT,** Wetherby Road, York. Telephone 78220 and 78501.

FOR SALE. 5-ton Electric DERRICK, 90ft. Jib, by Butters.

Write Box P.5053, "The Contract Journal."

HIRE Bell PLANT

Liner Machines delivered ex stock
HARROGATE 84800

Plant for Hire

SMITH 12-ton CRAWLER CRANES, complete with Positive Power Lowering and High Speed Derricking. Jibs 30ft./80ft.

SMITH 21 and SMITH Super 10 Diesel-driven EXCAVATORS, any equipment.

DOUGLAS 4-wheel drive DUMP TRUCKS, 10-ton capacity.

The above machines are available for immediate hire with competent operators.

THOS W. WARD LTD

Contractors' Plant Department

BRETENHAM HOUSE, STRAND, LONDON, W.C.2

Telephone: TEMple Bar 1515

CONTRACTORS' PLANT FOR HIRE

HIRE PURCHASE OR SALE.
Selection from our comprehensive fleet of Modern Plant.

CRANES (standard gauge):
12/15-ton Brownhoist, 50ft. Jib.
10-ton Grafton, Diesel, 34ft. Jib.
8-ton Wilson, Steam, 35ft. Jib.
5-ton Grafton, new Diesel conversion, 38ft. Jib.
5-ton Smith, 50ft. Jib (two).

CRANES (MOBILE ROAD):
Coles 15-ton, 80ft. Jib.
Lorain 10-ton, Lorry-mounted, extendible Jib, 30/70ft.

Ruston 10-ton, track-mounted, 40ft. Jib, 1951.
Ransomes 8½-ton, Diesel, 21ft. Jib, 1951.
Coles 5-ton Mark 7, on Thornycroft Chassis.

Jones 4-ton, K144, Diesel, pneumatic, 24ft. Jib.
Jones 3-ton, Super 40. Three available.
Jones 2-ton, Super 20 and 22.

DERRICKS:
5-ton Butters, 120ft. Jib, Electric, new 1951.
5-ton Butters, 80ft. Jib, Electric, new 1948.
3-ton Smith, 47ft. 6in. Jib, single motor.
3-ton 40ft. Jib, hand-operated.

EXCAVATORS:
Two each 19RB and 10RB.
Weatherill ¾yd. Loading Shovel, 1959.
J.C.B. Hydra-Digga/Loadall, ¾yd., 1960.

LOCOS:
Fowler Diesel Locos., 150-h.p. (two).
Barclay 80-h.p.; Ruston 88-h.p. Diesel.
Bagnall Steam, 14in. x 22in., oil-fired.
Peckett Steam, 7in. x 12in.

PORTABLE BOILERS:
Mobile, Oil-fired, Economic, on pneumatic (1,500lb. evaporation); Four 800lb. Mobile.
Oil-fired; also Static Coal-fired.

Cochran Cross Tube and Crane Boilers.
COMPRESSORS (on pneumatics):
210 c.f.m., 100 p.s.i., Diesel.
Four 105 c.f.m., 100 p.s.i., Diesel Broomhead.

ROLLERS:
12-ton Aveling.
9½-ton Marshall.
6-ton Huber.

CONCRETE MIXERS:
Millars 14/10, Diesel-driven.
Winget Roller Pan Mixer, Diesel, 4ft. 6in. dia. rotors.
Contractors' Pumps, Roadframes, Flexible Hoses (4in. to 10in.), Steel and Cast-iron Pipes up to 10in.

Electric Motors, Diesel Engines, Portable Crushing Plant, Light Railway Equipment and Locomotives.
Scaffolding, Fittings, etc.

FRED. WATKINS (ENGINEERING), LTD.
Coleford, Glos. Telephone: 2271 (5 lines).

PLANT FOR SALE.
Huber Diesel ROLLER, 6/8-ton, £400.
Numfeld Universal TRACTOR, with Hydraulic Lift, etc., £200.

Abtus GRAVEL or CLINKER SCREEN, 4ft. x 2ft. 1½in., £55.
Ex W.D. TRAILER, 4-ton, platform body, £50.
All in good working order.

SOUTHERN SURFACES, LTD.
New Milton, Hants. Tel.: New Milton 2428.

FOR SALE. DB 20 (gate change) 8A Hydraulic Dozer, Caterpillar 25 C.C.U.; 17RB, 4VIRON, 1, Shovel Equipment; R/R 410, 1954, P4, Shovel, N.C.A. Caterpillar Diesel Engine, Shovel.—**SUTCLIFFE,** Holt Road, Arnold, Notts. 26-3417.

PHONE MITCHELL'S PLANT SERVICES, LTD. for the HIRE of a Weatherill LOADING SHOVEL. HOW 3493.

FOR SALE. One Whitlock Dinkum Mk. III Diesel for County Crawler in perfect order. £38.
PLANT REPAIRS (BRISTOL), Fox Road, Bristol, 1.

RAILWAY MATERIAL

RAILS OF ALL SECTIONS AND ALL ACCESSORIES—CONTRACTORS' PLANT, TOOLS, ETC.

INSTALLATION OF SIDINGS UNDERTAKEN

ARMYTAGT & SONS, LTD.

STATION ROAD, WHITTINGTON MOOR
CHESTERFIELD

ALL TYPES OF BUILDERS' & CONTRACTORS' PLANT

FOR HIRE**SYMES**

(PLANT) LTD.

ONGAR ROAD
BRENTWOOD, ESSEX

TEL: BRENTWOOD 2116 (5 lines)

MOORE'S HOLST

Ace Comet Mobile and Midget scaffold.

HIRE Telephone
TOTtenham
0401
(10 lines)

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

FIRST-CLASS PACKAGED BOILERS by G. W. S. Furnaces, Ltd., new 1958/9, virtually unused: Model 300 Powermaster, 10,350lb./hr., 250 p.s.i. Model 250 Powermaster, 8,625lb./hr., 250 p.s.i. Model 60 Powermaster, 2,070lb./hr., 150 p.s.i. with Oil Burning Equipment and usual Accessories. **GEORGE COHEN SONS AND CO. LTD.**, Wood Lane, London, W.12. Shepherds Bush 2070. Stanningley, near Leeds. Tel.: Pudsey 2241.

BUILDMASTER SOR TOWER CRANE for SALE, with 88ft. or 100ft. jib. British manufactured current production model ex hire fleet, in first-class condition and guaranteed. — **ABELSON AND CO.**, Sheldon, Birmingham. Sheldon 2424.

SEVERAL Broomfield Model RB55 Heavy Duty CONCRETE BREAKERS, suitable for 1½ in. and 1½ in. steel, £10 each for quick clearance. Inspection.—**THOS. W. WARD LTD.**, Thames Road, Silverdown, E.16, or tel.: Temple Bar 1515 (Ext. 105).

STANDARD GAUGE STEAM LOCOMOTIVES 0-4-0 (two), Peckett, one Hudswell-Clarke. Boilers have just been inspected and are serviceable. Open to offers. **E. L. PITT AND CO. (COVENTRY) LTD.**, Brackley, Northants. Telephone 2271.

LOW-LOADERS for HIRE, up to 14-ton capacity. L 181, well bed.—**DOUGLAS HAMILTON, LTD.**, Twickenham Wells. Telephone: Southborough 1538/9.

FOR SALE, 3-ton Hand DERRICK, 60ft. jib, Butters make. Write Box P.5054, "The Contract Journal."

STOTHERT AND PITT 3BW VIBROLL ROLLERS for immediate delivery, 34 in. each.—**ABELSON AND CO. (ENGINEERS) LTD.**, Tel.: SHELDON 2424.

FOR SALE, Ails HOGG, in good condition, £1,800. **SAVILLE (TRACTORS) LTD.**, Penarth Road, Cardiff.

FOR LIMAS

PLANT SALES LTD.

25 CASTLEREAGH STREET, LONDON, W 1
Telephone: PADdington 2663/4

WEATHERILL HYDRAULIC

F. E. WEATHERILL LTD
USED EQUIPMENT DIVISION

We can meet your Used Loading Shovel requirements either at our main Works at Welwyn Garden City or our Depots at Walsall, Manchester, West Hartlepool and Bothwell.

- 1958 J.C.B. Loading Shovel and Backacting Trencher, powered by Fordson Diesel Engine, fitted with ¾ cu. yd. Loading Scoop, 750 x 16 front, 1400 x 24 tyres at rear£1,550
- 1959 WEATHERILL Hydraulic Loader, Type 12H, powered by Fordson Diesel Engine, with ¾ cu. yd. Scoop. Power-assisted steering fitted. Dipper Teeth£1,300
- 1960 (Dec.) WEATHERILL Industrial Loader, Type 52, with Perkins P3 Diesel Engine and ¾ cu. yd. Scoop. Fully enclosed driver's cab. Lighting Equipment. Towing Hitch. Machine very little used£1,150
- 1959 WEATHERILL 2-way Overloader, with Fordson Diesel Engine, fitted with ¾ cu. yd. Scoop, 1400 x 24 tyres at rear. Driver's Cab£1,150
- 1958 CHASESIDE Loadmaster, Model 800, front wheel drive Loader, powered by Fordson Diesel Engine, with Fullers Torque Converter. Fitted 1 cu. yd. Deep Penetration Scoop, 900 x 16 steering wheels, 1400 x 24 driving wheels£1,100
- 1957 WEATHERILL Hydraulic Loader, Type 2HCR, powered by Fordson Diesel Engine, with 1 cu. yd. Scoop. Towing Hitch, 29 x 8 front and 1400 x 24 tyres at rear£900
- 1959 WEATHERILL Industrial Loader, Type 51, with Perkins P3 Engine, fitted ½ cu. yd. Scoop. Versatile small loader with exceptional discharge height, giving big output with ability to work in confined spaces. Excellent tyres£750
- 1958 WHITLOCK Dozaloda, with Backacter, powered by Fordson Diesel Engine, fitted ½ cu. yd. Scoop£750
- 1958 AVELING-BARFORD 2½-ton Road Roller, powered by Diesel Engine, 4ft. width of roll. Repainted£275
- Also available at Welwyn ex demonstration WEATHERILL Hydraulic Loaders, Models 12H, L60, L62 and L64, at greatly reduced prices.

Ask for fuller details of these and other machines from our most comprehensive stock.

F. E. WEATHERILL LTD
USED EQUIPMENT DIVISION
Tewin Road,
WELWYN GARDEN CITY, Herts.
Tel.: Welwyn Garden 2421-5

EXCAVATORS FOR SALE.
Ruston-Bucyrus 198B EXCAVATOR, No. 16355, Dragline or Backacter Equipment, at Glasgow, £2,950.

Two 108B Ruston-Bucyrus EXCAVATORS, Nos. 16127/16921, Dragline or Backacter Equipment, at Leeds/London, £1,350/£1,450 each.
Priestman Bush Mk. IV (¾ cu. yd.) EXCAVATOR, Forward Shovel Equipment, at Leeds, £475.
Smith Super 10 EXCAVATOR, No. 17889, Backacter and Skimmer Equipment, at Leeds, £1,200.
GEORGE COHEN SONS AND CO. LTD., Wood Lane, London, W.12. She. Bush 2070.

FOR SALE.
Stothert and Pitt 28W VIBROLL, as new, £275.
Stothert and Pitt 32R Tandem VIBROLL, £250.
Choice of two Winget TTHR MIXERS, Hydraulic, £165/£210.

Parker 10/7 Tilting Drum MIXER, Diesel, £100.
Parker 10/7 Closed Drum MIXER, Diesel, £150.
Dinkum Major DIGGER, Fordson, £785.
Benford Diesel DUMPER, AVA1, £185.
GF 10cwt. DUMPER, AVA1, Diesel, £100.
PLANT REPAIRS (BRISTOL),
Fox Road, Bristol, 2. Tel.: Bristol 5-6009.

FOR SALE. Priestman Tiger FACE SHOVEL EQUIPMENT, ¾ cu. yd., new October, 1960, used few months only, cost £960, accept £700. Would HIRE. **FRED. WATKINS (ENGINEERING) LTD.**, Coleford, Glos. Phone 2271/5.

FOR HIRE. Lima 802 CRANE, fully rigged and insured, with 100ft. Boom.—**PLANT SALES LTD.**, 25 Castlereagh Street, London, W.1. Tel.: Paddington 2663/5.

FOR SALE. 5-ton STEAM LOCO., 54ft. jib, by Butters. Write Box P.5056, "The Contract Journal."

WANTED

108Bs, 198Bs, 228Bs, 348Bs and 338Bs EXCAVATORS, with F/Shovel and Dragline, in very good working condition and reasonable price. Modern machines preferred.

Write, giving full details, to:

BOX P.5227, "THE CONTRACT JOURNAL."

WANTED

to purchase urgently for export. Lima 1201 excavators. Best possible price offered. Condition immaterial.

Write giving fullest details to:

Box No. V.V.520, "The Contract Journal"

Buildmaster^{regd.} CRANES



**IT'S BRITISH MADE
BUILDMASTER SOR
TOWER CRANES**

Manufactured in England for
Messrs. Abelson & Co. Limited
by Ruston-Bucyrus

**ALL ELECTRIC—RAIL MOUNTED
SELF ERECTING
FOR SALE OR HIRE**

LIFTING DUTIES

Load.	Height of lift.	Radius.
1 ton 10 cwt.	117 ft.	88 ft. 6 in.
2 tons	155 ft.	65 ft. 6 in.
3 ton 15 cwt.	178 ft.	31 ft.

**BACKED BY REAL SERVICE
BY**

ABELSON

& CO. (ENGINEERS) LTD.
SH ELDON · BIRMINGHAM 26
Phone: SHEldon 2424 (10 lines)
Grams: ABELSON, BIRMINGHAM

FOR SALE.
378B EXCAVATOR, complete, with Dragline Equipment, £4,750.

378B EXCAVATOR, complete, with Face Shovel Equipment, £4,750.

338B EXCAVATOR, complete, with Dragline Equipment, £3,250.

1957 Chasidase 500, excellent order, new tyres on rear wheels, £950.

1958 Muir-Hill LOADING SHOVEL, cable operated, good running order, £245.

MOBILE OFFICE, three large compartments, sink unit, cupboards, mounted on eight-wheel trailer, £495.

25-ton Scammell and 20ft. Well Carriamore LOW-LOADING TRAILER, £2,250.

10-ton 15ft. Well LOW-LOADING TRAILER, k/o rear wheels, £600.

Diamond T Hercules Diesel TRACTOR, fitted Power Winch and twin drive rear axle, £1,800.

RECONDITIONED TRACKS for 198B, £250 per pair. Selection of TRACTOR WINCHES.

MERTON ENGINEERING CO. LTD., Faggs Road, Feltham, Middlesex. Tel.: Feltham 3045.

FOR SALE. N.C.K. 304 EXCAVATOR, ¾ cu. yd. capacity, powered by a 7.7 A.E.C. 6-cyl. Engine. Crane and Dragline Equipment fitted, year of manufacture 1951, recently undergone overhaul, £3,000. Apply **MACFIELD PLANT LTD.**, 26 Ballantyne Road, Leith, Edinburgh, 6. Tel. 36384.

FOR SALE. 1957 Bray DUAL LOADER, £425. Write: DEMO TRUCKING, LTD., 23 Three Corners, Hemel Hempstead, Herts. Broomoor 5376 (after 8 p.m.).

C. F. WILLIAMS (PLANT HIRE) LTD., Stockport. For EXCAVATORS, Drott 4-in-1 Machines, BULLDOZERS, etc.—Phone: Stockport 7098.

HENRY BOOT PLANT

OFFER:

EXCAVATOR EQUIPMENTS FOR SALE

N.C.K. 304 FORWARD SHOVEL£800
198B BACKACTER, including Laggings £250
198B SKIMMER, including "A" Frame £150
PRIESTMAN PANTHER SKIMMER and BACKACTER£100
SMITH 2/10 SKIMMER and BACKACTER £50

HENRY BOOT AND SONS (PLANT) LTD., Dronfield, Sheffield. Tel.: Dronfield 3206. Also at Atlantic St., Broadheath, Atrincham. Tel.: Atrincham 1701.

Hergarth OF YORK LTD

MAIN DISTRIBUTORS



with Super **LIG** Service

New ALLEN 9/15 TRENCHER	£3,750
New ALLEN 3/12 TRENCHER	£1,100
New J.C.B. 4s. ex stock	£2,780
New J.C.B. 4L. ex stock	£1,725
1959 HYDRA-DIGGA/LOADALL "65"	£1,600
1958 HYDRA - DIGGA	£1,100
J.C.B. Mark 1s. from 3-in. Bucket	£500
1961 J.C.B. 4, with 3-in. Bucket	£2,350
1954 DINKUM DIGGER	£400
1959 HOWARD Super	£1,500
1959 HOWARD Super	£1,200
1957 HOWARD Standard	£900
1959 WINGET 8s. plus grading	£1,450
1946 ALLEN-PARSONS 25	£500
SMITH Super 10	£500
SMITH 2/10	£400
1939 D2 TRACTOR, Caterpillar	£150
FLOWER Challenger 1 TRACTOR	£650

All reconditioned machines carry three months' warranty.



Telephone: York 55181/2 & 54957

MOORE'S EXCAVATOR

Ruston Bucyrus ¾, 1 and 1½ cu. yd., all equipments.

HIRE Telephone

TOTtenham
0401
(10 lines)



PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

FOR SALE.
Whitlock Dinkum Digger Major EXCAVATOR and Power Shovel, manufactured 1958, overhauled and repainted, in excellent condition. Complete with Excavating Bucket (choice of two), £1,650.
Whitlock Mk. III DINKUM DIGGER and Dozaloda, manufactured 1957, in very good condition and complete with Excavating Bucket, £1,000.
Shawnee EXCAVATOR and Whitlock Dozaloda, manufactured 1957, in good working order and complete with three Excavating Buckets, £800.
J.C.B. EXCAVATOR/COUNTERWEIGHT, manufactured 1955, in working order, complete with Excavating Bucket, £500.
Pescara-Muntz COMPRESSOR, manufactured 1954, in working order and complete with two Road Breakers, steels and hoses, £250.
Pegson RIPPER, overhauled and complete with battery, £25.
Brahms-Patterson BITUMEN BOILER, with Engine-driven Agitator, £50.
Further details:
GROCOCK AND DAY (PLANT HIRE), LTD.,
Rowley Street, Leicester. Tel. 36566.

LOADING SHOVELS.
1960 Bray BL30, 1½ cu. yd. Bucket, cab, overhauled, £1,500.
1959 Chasideside 800TC, 1 cu. yd. Bucket, Torque Converter, cab, £1,450.
1958 Chasideside 700, 1 cu. yd., cab, power steering, £1,000.
1958 Bray BL430, 1½ cu. yd., four-wheel drive, cab, power steering, £1,450.
1956 Chasideside 500, ¾ cu. yd. Digger Bucket, cab, £850.
1957 Bray Crawler, 1 cu. yd., Ford Diesel, £1,450.
Chasideside 1 yd. Diesel Wire Rope SHOVEL, ex Council, £275.
New Bray Four-wheel drive and Two-wheel drive Shovels always in stock.
WILLIAM R. SELWOOD, LTD.,
Chandler's Ford, Hants. Phone 2981.

FOR SALE. Caterpillar D6 SR type 6-cyl., with Hydraulic Bulldozing Equipment and Hydrat Logging Winch. Also Caterpillar D4 2T type, L.T. Winch and 4yd. Scraper.—F. T. LEWIS AND SON, 712 Lock Road, Hanley, Stoke-on-Trent. Tel.: Stoke-on-Trent 29360.

ALLEN-PARSONS Model 12/18 TRENCHING MACHINE. Fitted 4-cyl. Dorman Diesel Engine. Available for SALE. Inspection by appointment. Price £450 f.o.t.—MONK AND CO., LTD., Padgate, Warrington. Tel.: Warrington 31288.

FOR SALE—CRAWLER TRACTORS.
D2 SU, Winch, new spare tracks, £400.
Cietrac DDH, new rollers, tracks good, £150.
Good but weathered.
Halton Gate Farm, Astmoor, nr. Runcorn (2386).

**PAN TYPE CONCRETE MIXERS
for ARTIFICIAL STONE
MORTAR GRINDING MILLS**

SMEDLEY BROS. LTD.

BELPER, DERBY. Telephone: Belper 12

'Phone STOCKTON 64790 & 67971/2
FOR

WHITE'S

CRANE HIRE SERVICE

Maximum Lift
50 tons
Jib
140 ft.

LORRY MOUNTED SELF-PROPELLED AND CRAWLER CRANES

JAMES D. WHITE LTD
Harewood Works
THORNABY-ON-TEES

**CUT YOUR PRODUCTION COSTS
BY USING THE TRITON VIBRATING TABLE FOR YOUR CONCRETE WORK
AT THE LOWEST PRICE**

AVAILABLE
FOR HIRE
OR
HIRE PURCHASE



**DIRECT MANUFACTURERS
OF
VIBRATING SCREENS,
HOPPERS, FOUNDRY
GRIDS, TABLES, etc.**

These tables are fabricated from mild steel and are supplied complete with fixing channels and rubber mountings, and can be fixed to any height you require. These machines are normally mounted on concrete blocks, which we have illustrated, thus avoiding costly supporting structures.
The tables are powered by the Triton Electric Vibrating Motor, which is sturdily built and can be supplied to work from any 50 cycle alternating current circuit.
Tables are supplied in the following sizes: 2' x 2', 4' x 2', 6' x 3', 8' x 4',
6' x 3' Vibrating Table as illustrated—£99 6s. 3d. complete. Other prices on application.

TRITON ENGINEERING CO. (SALES) LTD.

KINGSNORTH INDUSTRIAL ESTATE, WOTTON ROAD, ASHFORD, KENT. Tel: ASHFORD 2051-2-3.

FOR SALE.
Allam 2½ in. and 1½ in. VIBRATORS, 240-V, £35 each.
Allam External Shutter VIBRATOR, 440-V, £17.
Winget Vibrator 2in. Poker VIBRATOR, 440-V, £40.
A.C.E. Humdinger 2in. Poker VIBRATOR, 440-V, £45.
A.W. 3in. Pneumatic Poker VIBRATORS, £15 each.
Pington 220 TOWER CRANE, Traveller or Climber, 16cwt. at 82ft. mast to 110ft.; 240R. 75lb. rail, £2,250.
13/14-ton PORTASILO, 240-V, electric aeration, unit 1955, recently painted and tested, £250.
20-ton Dumbo CEMENT SILO, 1959, 240-V electric aeration unit, £450.
50R Buildmaster TOWER CRANE, complete, new 1960, 96ft. jib, 95ft. Mast, 3 tons at 39ft., mast height 187ft., repainted, perfect condition, £6,250.
1½ in. Goodenough Electric 240-V PUMPS (no hoses), c/w starter, £35 each.
1½ in. Ransomes Electric 440-V PUMP (no hoses), c/w starter, £40.
2in. Goodenough 240-V PUMPS (no hoses), c/w starters, £35.
2in. Ransomes Petrol PUMPS, J.A.P. 5 (no hoses), £20 each.
A.C.E. BEAM AND COLUMN POURER, electric 440-V.
All inquiries to **BOVIS PLANT DEPOT,**
Oxgate Lane, Cricklewood, London, N.W.2.

CONCRETE MIXERS FOR HIRE OR SALE.
5/3½ Liner, Winget, T. W. Ward, Stothert and Pitt, Goodwin, Wall-Ace, Benford and Parker, Petrol, Diesel and electric driven. Choice of 30 machines available.
7/5 Millars Hand loaded, on four steel wheels. Fitted Petrol Diesel Engine. Overhauled, cleaned and painted.
7/5 Winget, Benford and Parker, Mopper loaded.
10/7 Rex, Winget, Parker, and Stothert and Pitt. Tipping and Closed Drum.
14/10 Stothert and Pitt, Rex, Ransomes and Rapier, and Winget Closed Drum.
21/12 Rex and Benford.
W. V. DAVIES,
Concrete Mixer Service, Shipston-on-Strour 525 & 612.

FOR SALE OR HIRE.
Three Coles 5-ton Short-wheelbase Lorry-mounted CRANES.
Two Coles 5-ton Long-wheelbase Lorry-mounted CRANES.
Eight D7 TRACTORS, 1T, 4T and 3T, with equipments.
One D6 TRACTOR, SR, Blade and Winch.
6yd. and 9yd. SCRAPERS, Onions and L.T.
Three Euclid S7 Motor SCRAPERS, Leyland Engines.
WM. TAYLOR (NORWICH), LTD.,
Horsely Toll, Stanground, Peterborough.
Telephone: Peterborough 4389.

ROAD ROLLERS: Aveling-Barford GDR, 9/11-ton, 1953, power steering; GD1, 8/10-ton, late 1946, ex council, power steering; GC, 6/8-ton, 1947, ex council; GBV, 5/6-ton, 1950, ex council; SD, 10/12-ton, 1946. All fitted with Awnings and Sprayers.
A. M. COLE, Eastgate, Sleaford, Lincs. Tel. 463.

AVAILABLE FOR HIRE with skilled operators, 50-ton Heavy Duty CRAWLER CRANES fully rigged with 120ft. Booms complete with Jibs, fully insured.—PLANT SALES, LTD., 25 Castlereagh Street, London, W.1. Telephone: Paddington 2663/5.

HERE IT IS

WESTLEIGH

CRANES

SELF TIPPING

CRANES

SIMPLE-FAST-SAFE

WESTLEIGH DEVELOPMENT COMPANY LIMITED

73 LEADENHALL STREET,
LONDON E.C.3

Telephones: AVenue 9576 & 1120

GABRIEL MACHINERY COMPANY, LTD.
Shawnee-Poole 7yd. REAR DUMP, new 1960, used one contract only, choice of several SLATS, No. 5500, Standard Bucket, 1957, well maintained, £1,575.
International Drott, as above, 1958, £1,675.
International Drott, as above, 1958, can be seen working, £1,350.
Benford 18/12 Reversing Drum Diesel-driven scraper and High Discharge Frame, used contract only, and in first-class condition, £2,000.
Winget 21/14 Diesel-driven CONCRETE MIXER, 1957, overhauled and repainted, £275.
J.C.B. Hydraulic EXCAVATOR, 1960, complete with four Buckets and Extension Boom, 1,500 tons only, and in first-class condition, £2,100.
DINKUM DIGGER, Mk. 3, 1957, complete with Shovel, overhauled, £650.
Muir-Hill 2WL Mk. 2 Hydraulic LOADING SHOVEL, fitted 1yd. Shaker Bucket. This machine purchased new late 1960 and has been very little used, £950.
Weatherill 2HCR Hitip Hydraulic LOADING SHOVEL, purchased new in 1960 and repainted completely overhauled, £1,100.
Ruston-Bucyrus 10RBs, choice of several, choice in equipment, From £450.
Ruston-Bucyrus 19RB, 11000 Series, fitted Backhoe Equipment, good working order, £1,550.
Congreve 15cwt. DUMPER, 1959, direct drive Petrol, AVA1, overhauled and repainted, £175.
Stothert and Pitt 7½cwt. Vibrol, 1961, £260.
New Greens 8cwt. Vibrating ROLLERS, ex stock, £350.
Palmer Lane, Enfield, Middx. Tel.: Howard 834.

FOR SALE—TRACTORS.
Autocar 7.7, A.E.C. Diesel, air brakes, first-class. As new, Michelin all round, 3,000 miles, low w.d., S.A.E. Ideal site work dumper or low loader, £600.
Petrol Autocar, £150. S.A.E. air brakes.
Scammell 6-ton, Petrol, 1953, £100.
Haltom Tasker, Petrol, 1952, £35. Good condition.
Balfour Beatty Farm, Astmoor, nr. Runcorn (2386).

FOR SALE, J.C.B. 4 EXCAVATOR, November, 1960, 18in., 24in. and 34in. Buckets, excellent condition throughout, £2,000.—Write Box P5714, "The Contract Journal".

SLOGGETTS PLANT HIRE.—Fleet of DIGGERS, LOADERS for immediate HIRE.—2 Burtons Lane, Hampton Hill, Middx. Tel.: Teddington Lock 1138A.

**WHY HIRE WHEN
YOU CAN BUY CHEAPER!!**

New and S/H Scaffolding, Mixers, Boards, on DEFERRED TERMS
All types of Plant.
Repayments over 12, 18, 24 months.

THE HILL GROUP
69/70 PENCE ROAD, LONDON, SE13
Telephone: SYDenham 3131/5.

USED EQUIPMENT with a GUARANTEE

CHASESIDE USED EQUIPMENT DIVISION

IF YOU REQUIRE A RELIABLE USED MACHINE, YOU NEED LOOK NO FARTHER THAN HERTFORD.

HYDRAULIC LOADING SHOVELS:

Stock No. Price ex works
SK.1467.—1956 LOADMASTER 600, Fordon Diesel Engine. All-weather Cab. Lighting. 1 cu. yd. Toothed Scoop. Good tyres. See HERTFORD £975
SK.1488.—1956 LOADMASTER 510, Perkins L4. Cab open-sided. ¾ cu. yd. Scoop. Good tyres, rears 1200 x 24. See HERTFORD, £875
SK.1615.—1958 LOADMASTER 700, Fordon Diesel Engine. Open-sided Cab. Power steering. Lighting. 1 cu. yd. Toothed Scoop. Good tyres. New 1400 x 24 on rears. Very good machine. See HERTFORD £1,275
SK.1850.—1960 LOADMASTER 700, Fordon Diesel Engine. Power steering. All-weather Cab. Lighting. 1 cu. yd. Toothed Scoop. New tyres. Rears 1400 v 24. Excellent machine. See HERTFORD £1,450
SK.1489.—1956 LOADMASTER 500, Fordon Diesel Engine. Open-sided Cab. Lighting. 1 cu. yd. Scoop. Good tyres, rears 1200 x 24 £940
SK.1659.—1957 LOADMASTER 500, Fordon Diesel Engine. Open-sided Cab. Lighting. 1 cu. yd. Toothed Scoop. Good tyres, rears 1200 x 24 £1,180
SK.1634.—1-ton CHASESIDE Mobile Crane fitted with Fordon Diesel Engine (Rear). New jib. Pully Block and Hook. Cab. New tyres all round. A bargain. Will be ready in approximately 14 days £660

SPECIAL BARGAIN

One only.—Powerful LOADMASTER 3500 4-wheel drive Shovel (ex demonstration hire machine). Hours worked only 1,117. Fitted with 6-cyl. 150-h.p. Dorman Diesel Engine. Well equipped Cab. Lighting. Full automatic transmission. A real bargain at £5,200.
Ex demonstration LOADMASTER 1000 4-wheel drive Shovel. Fordon Diesel Engine. Torque converter. Well equipped Cab. Lighting. Offered at a worthwhile price.

CHASESIDE ENGINEERING CO. LTD.
Used Equipment Division.
Station Works, Hertford, Herts.
Tel.: Hertford 3113-8.

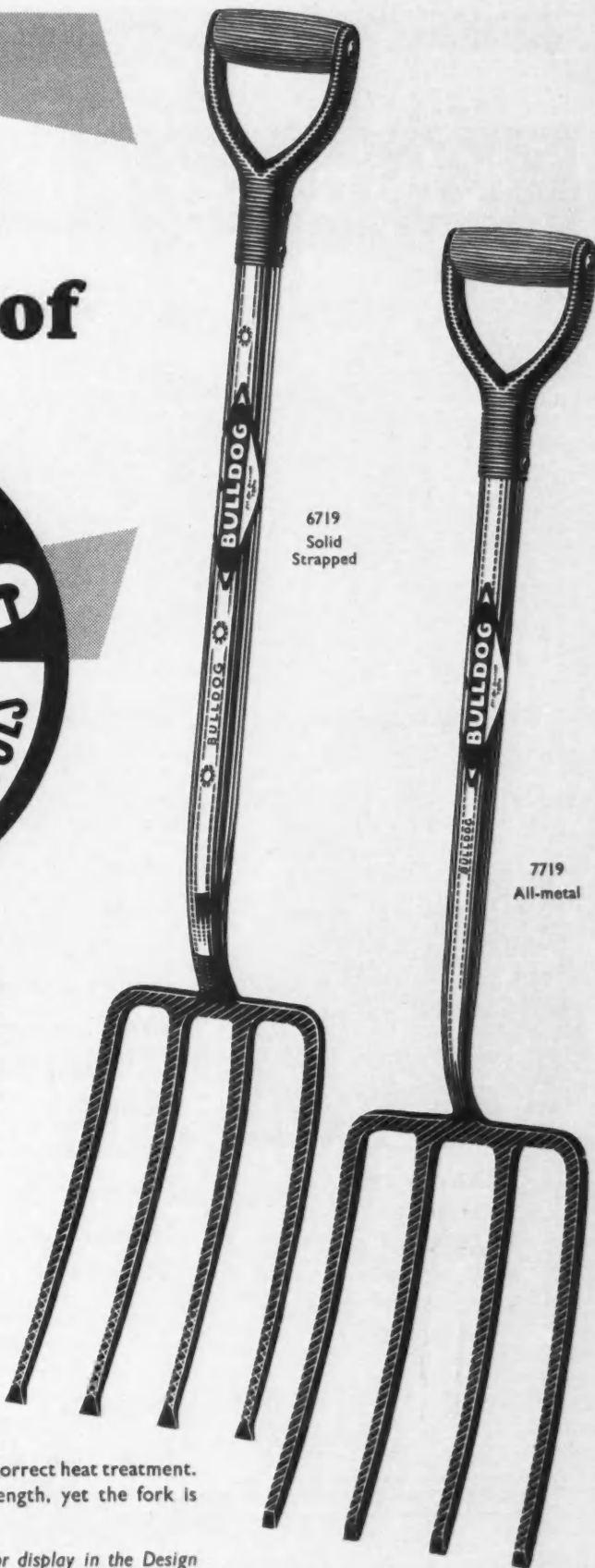
**You can
be sure of**



The BULLDOG WELDLESS SOLID STRAPPED TRENCHING FORK is forged from one piece of special quality steel without any welds whatsoever. This is one of several good reasons why for toughness, ease of handling and long life you can't beat a BULL-DOG.

The BULLDOG WELDLESS, ALL-METAL TRENCHING FORK. Forged from one piece of high quality steel without any welds whatsoever, this new fork has been specially designed for heavy duty service. Every 'Bulldog' fork has prongs rolled to uniform thickness, which eliminates all possibility of incorrect heat treatment. The all-steel construction gives immense strength, yet the fork is well balanced and pleasing to handle.

This fork has been accepted for Design Index for display in the Design Centre.



ENGLISH TOOLS LTD • CLARINGTON FORGE • WIGAN

KINGSTON PLANT HIRE

FELTHAM 4084



FLEET OWNERS



TRAXCAVATORS —
INCLUDING
DROTT
SKID SHOVEL
WITH THE POPULAR
4 in 1 BUCKET

— INCLUDING —

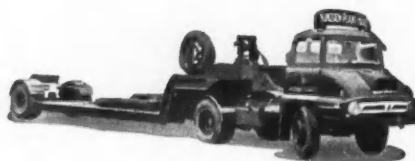
EXCAVATORS
TRAXCAVATORS
BULLDOZERS
SCRAPERS
MOBILE COMPRESSORS
ROAD ROLLERS
VIBRATING ROLLERS
DUMPERS
CONCRETE MIXERS
PUMPS
CRANES
SHOVELS

FLEET OWNERS



EXCAVATORS —
ALL EQUIPMENTS
ALL SIZES
INCLUDING
RUSTON 19RB & 10RB
SMITH '21' & SUPER 10

OWN LOW LOADERS



TRANSPORT TO SITE

KINGSTON PLANT HIRE LTD. • Works & Offices: TWICKENHAM RD. • HANWORTH • MIDDLESEX

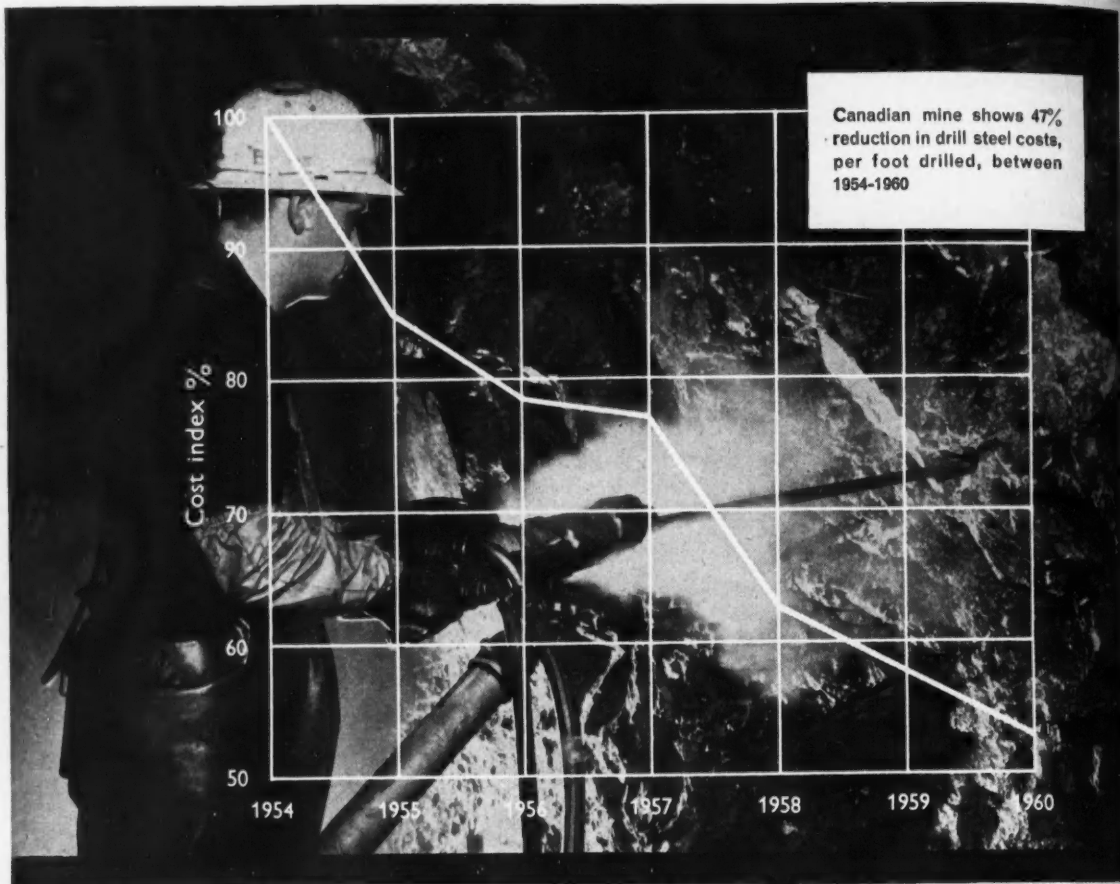
**From every point of view
... a major asset!**



**BUILT TO EXPECT ROUGH TREATMENT
FOR SHEER QUALITY, PERFORMANCE
AND EASE OF OPERATION
THIS 250 C.F.M. COMPRESSOR IS OUTSTANDING**

**The  ARMD 250
mobile rotary compressor**

See how Sandvik Coromant reduces footage costs



Here's a graph taken from the cost indices of a large Canadian mining company. In 1954, the drill steel cost, per foot drilled, was 5.87 cents; by 1960 this had been cut to only 3.11 cents—a reduction of 47%. That's a picture of Coromant drilling economy!

What made this possible? Sandvik technicians believe in making the best quality steels and then making them better. Improved heat treatment, bigger inserts, higher grade tungsten-carbide, and a unique brazing method add feet to the life of Coromant drill steels. And strict control—from the ore mined in Sandvik's own mines to the finished steels—makes sure you get uniformly high quality. That's why *Coromant drilling is economy drilling!*

Sandvik Coromant drill steel equipment is sold exclusively by Atlas Copco companies and agents, who provide a complete service in more than 100 countries. If you have a drilling or compressed air problem, call your nearest Atlas Copco office. Or write us direct, today!

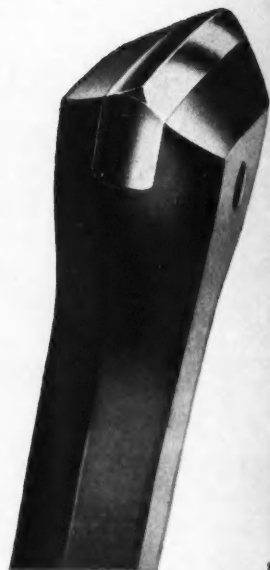
Atlas Copco

puts compressed air
to work for the world

ATLAS COPCO (GREAT BRITAIN) LTD

Maylands Avenue, Hemel Hempstead, Herts. Tel: Boxmoor 6040

Sales and Service Depots at: LONDON · BRISTOL · CARDIFF · LICHFIELD
LEEDS · MANCHESTER · NEWCASTLE · GLASGOW · BELFAST · DUBLIN



BALANCED POWER-



precision built DAVID BROWN equipment

There is a David Brown tractor to suit every mobile power requirement and a full range of matched equipment for each model. For 'dozing, loading, hauling, winching, ripping and every earth moving operation, David Brown can provide the ideal machinery.

50TD SHOVEL

The 50TD Shovel with 50 b.h.p. six cylinder diesel engine has a bucket capacity of one cubic yard. The loading cycle is 5.6 seconds and the maximum lift 10 ft. 6 in.

TASKMASTER

The Taskmaster is a wheeled tractor with 42.5 b.h.p. four cylinder diesel engine. Versions are available with torque converter for smooth take-off under any load and with twin rear wheels for maximum adhesion. All models comply fully with the Road Traffic Act and are ideal for all general haulage purposes.

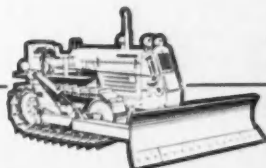
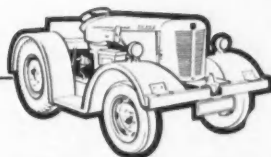
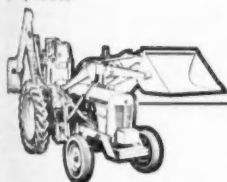
950 INDUSTRIAL TRACTOR

WITH SHAWNEE BACK-ACTER

The 950 is a wheeled tractor with 42.5 b.h.p. four cylinder diesel engine. The Back-Acter has a maximum loading height of 12 ft. 9 in., a reach of 14 ft. 4½ in., a digging depth of 11 ft. 9 in., and a 180 degree slewing angle.

40TD ANGLEDZER

The 40TD Angledozer has a 42.5 b.h.p. four cylinder diesel engine and is equipped with hydraulically operated angledozer (8 ft. blade). A 50TD Angledozer (50 b.h.p. six cylinder diesel) is also available.



DAVID BROWN TRACTORS(SALES) LTD

MELTHAM, HUDDERSFIELD, YORKSHIRE. TELEPHONE: MELTHAM 361

**EDDISON
BEDFORD**

Tel: Cardington 206

**EDDISON
BIRMINGHAM**

Tel: Shirley 3522

**EDDISON
BRECON**

Tel: 330

**EDDISON
CARDIFF**

Tel: 71354 5

**EDDISON
DARLINGTON**

Tel: 3258

**EDDISON
DEWSBURY, YORKS.**

Tel: Hockmondwike 1360

**EDDISON
DISS, NORFOLK**

Tel: Diss 2688

**EDDISON
DORCHESTER**

Tel: 57 8

**EDDISON
EDINBURGH**

Tel: LBerton 3221

**EDDISON
GLASGOW**

Tel: Stepps 628

**EDDISON
GRANTHAM**

Tel: 1221/3

**EDDISON
IPSWICH**

Tel: 57021

**EDDISON
KINGSTON-ON-THAMES**

Tel: KINGston 0066/7

**EDDISON
MANCHESTER**

Tel: Ramsbottom 2521/2

**EDDISON
NEWTON ABBOT, DEVON**

Tel: Newton Abbot 1181

**EDDISON
SOUTHAMPTON**

Tel: Bishop's Waltham 137

EDDISON



EVERYWHERE

**YOUR LOCAL PLANT SPECIALISTS
WITH 100 YEARS' EXPERIENCE**

Road Rollers - Footpath Rollers - Vibrating Rollers

Portable and Mobile Compressors

Tractor Shovels-Angledozers-Scrapers-Excavators

Dumpers - Cranes - Concrete Mixers-Pumps

and now Fork Lift Trucks !

GOOD PLANT AND GOOD SERVICE WITH NATION-WIDE COVERAGE

KEEP MOVING on Firestone

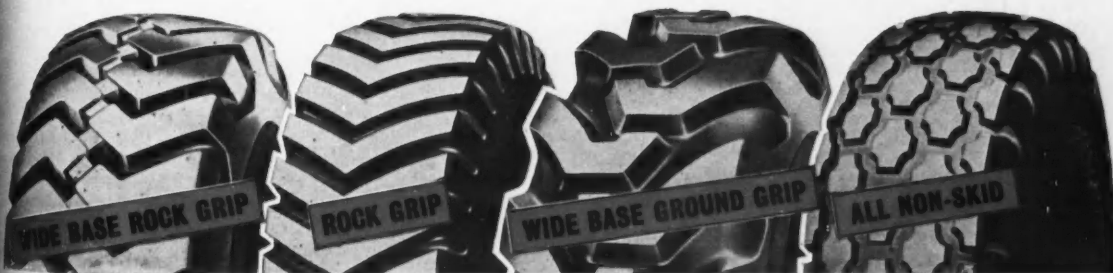


Firestone Nylon Earthmover tyres are built to keep construction jobs up to schedule. They have the extra traction and extra strength needed to speed up the work and reduce tyre costs. They cope with the toughest grading, construction or open cast mining operations.

Firestone Nylon tyres give the greatest protection against damage because nylon cords, being tough and resilient, have greater resistance to heat and flexing fatigue and are highly resistant to impact and bruise damage. Nylon does not absorb moisture, so that nylon tyres are

immune to damage from water penetration. Firestone Nylon Earthmover tread designs give maximum traction in the worst conditions and are extra tough to resist cutting; double-thick sidewalls give added protection against cuts and snags.

There is a complete range of Firestone Nylon Off-the-Highway tyres specially designed for the many different types of Earthmoving equipment. They give more hours of operating life, they cut down-time and they increase your profits.



TUNNY 2/3ton Hydraulic Crane. Goes anywhere... low headroom... low price. **TICO Hydraulic Loading Crane** with built-in cable winch will lower or raise 115ft. below ground level. Backed by Doe's Service.



SERVICE SPARES

SHAWNEE POOLE FD570 Rear Dump Hauler. Cheap to buy... cheap to run... halves off road haulage costs... backed by Doe's Service.



Head Office & Works **ULTING MALDON ESSEX** Tel: Hatfield Peverel 311 (Night 319)

STANWAY SHOVELALL. The ONLY economical way of unloading coal, lime and refuse from railway wagons. Backed by Doe's service.



SALES

THWAITES Nimbus T.3 15cwt. Dumper. Price right... performance right... spares cheap... made by the Specialists. Backed by Doe's service.

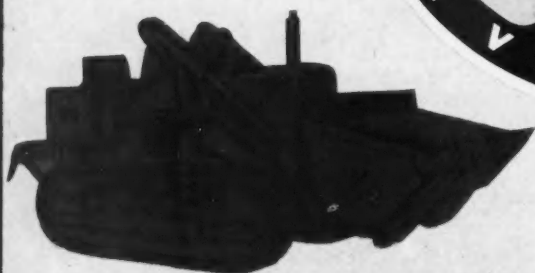


ERNEST DOE

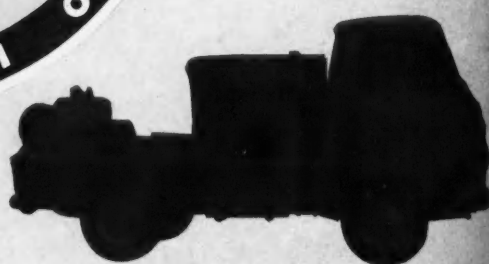


& SONS LTD

JOHN DEERE 10/10 Crawler Loading shovel. Fastest dig/load cycle... easy on the operator... lowest back-wear cost... immediate delivery. Backed by Doe's service.



POWERTRUC/HYDROVANE Battery Compressor. £2 10 0 licence... no-tax diesel. The best compressor hire proposition yet. Backed by Doe's service.

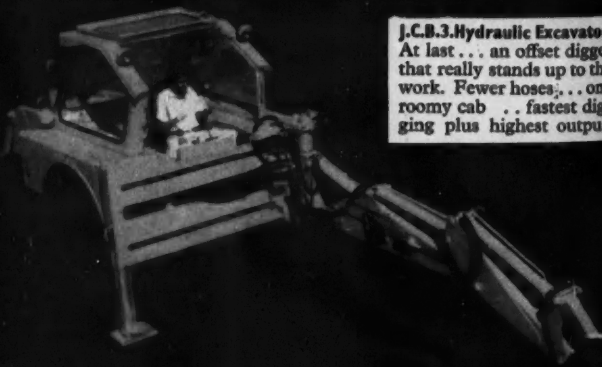


London Depot: Therapia Lane Mitcham Rd Croydon Tel: Thornton Heath 4844/4095 (day & night)

J.C.B.4 Hydraulic Excavator. Strongest construction... biggest output... greatest for square hole digging... backed by Doe's service.



J.C.B.3 Hydraulic Excavator. At last... an offset digger that really stands up to the work. Fewer hoses... one roomy cab... fastest digging plus highest output



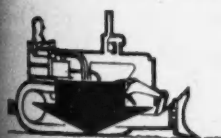
Track
Marshalls
can
take
it—

Better Batters—fast! That's the revolution Track-Marshalls have brought to motorway construction. Conventional trimming by drag line and hand has been out-dated as slow and costly. Fast-moving fine-grading Track-Marshalls are proving — often on 1 in 1 curved slopes — that their stability and excellent weight distribution give quicker, better results where other crawlers merely churn the topsoil.

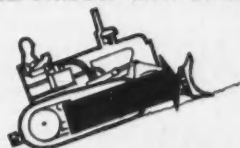
UP TO ONE-IN-ONE!



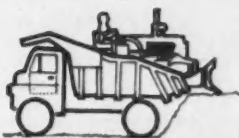
HERE'S WHY THE TRACK-MARSHALL OUT-PERFORMS ITS COMPETITORS:



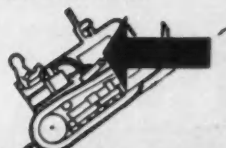
LOW CENTRE OF GRAVITY The Track-Marshall hugs the ground. Its weight is evenly distributed.



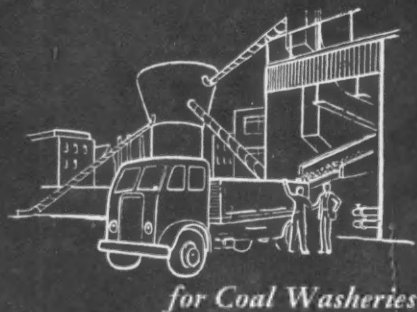
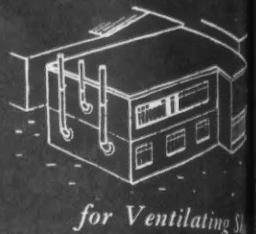
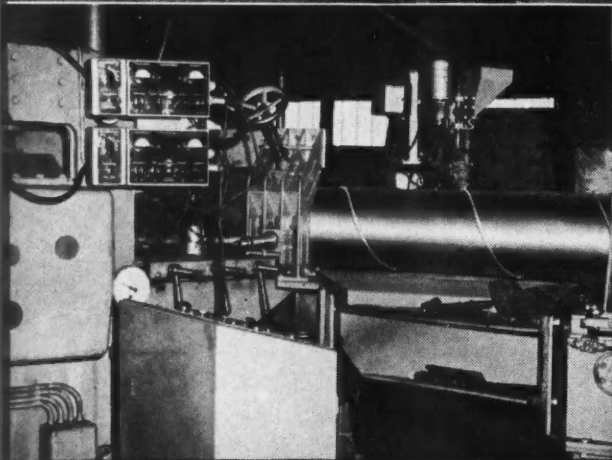
A MIGHTY PUSH There's real might behind the Track-Marshall's blade — 13,000 lbs of sustained push.



IT'S COMPACT TOO Track-Marshalls can ride the dumpers — fast transportation meets and beats schedules!



KEEPS ON CLIMBING Sump transfer pump maintains top engine performance even on one-in-one gradients.



CONSETT

Spiracon

REGD. TRADE MARK 130071

SPIRALLY-WELDED STEEL PIPE

Can be made to any reasonable length and in various diameters from 4" to 12" for many industrial uses

SPIRACON Pipe is made at Consett from hot-rolled steel strip, spirally formed and simultaneously welded both inside and out by the Driam process.

This method of manufacture produces a pipe which is at least 25% stronger than conventional pipe in resistance to internal pressure. The sizes run from

4" to 12" internal diameter, with walls of from $\frac{1}{4}$ " to $\frac{1}{2}$ " thickness. Lengths up to 40 feet can be tested hydrostatically for use as water or oil supply lines, but for other uses where there is no internal pressure, such as ventilating shafts and the like, lengths up to 80 or 90 feet can be manufactured. Ends can be cut square or fitted with any standard type of flange.

For further particulars of this new Consett product, with complete range of sizes and test pressures, ask us to send special SPIRACON folder.



CONSETT IRON COMPANY LTD
CONSETT · COUNTY DURHAM · ENGLAND

Tel: Consett 341 (12 lines) Telegrams: Steel Phone Consett

Pavilions

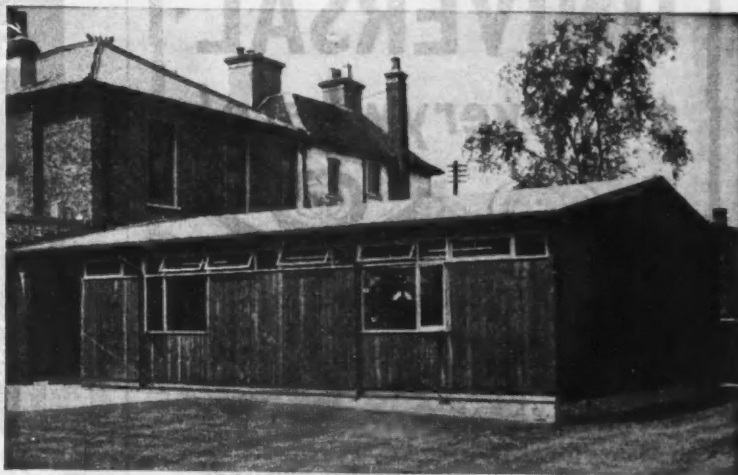
Clubs

Schools

Libraries

Shops

SOME EXAMPLES OF FINE TIMBER BUILDINGS



EXTENSION TO CENTRAL LIBRARY, SIDCUP, KENT.
Photograph by courtesy of the Chislehurst & Sidcup U.D.C.



TENNIS PAVILION, HAMPDEN PARK, EASTBOURNE.
Photograph by courtesy of The Borough Engineer & Surveyor, County Borough of Eastbourne.

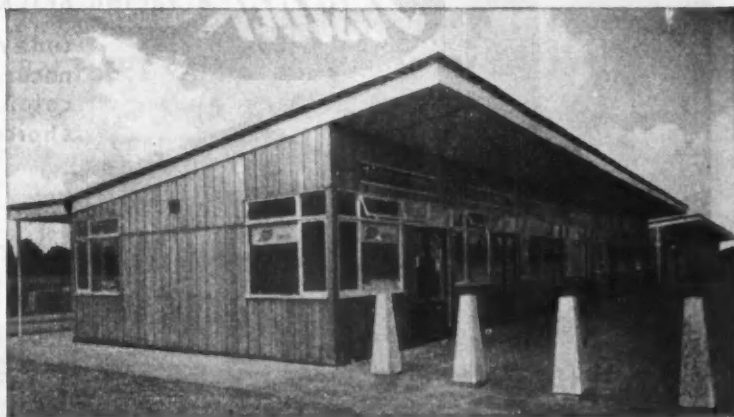
Hospitals

Offices

Canteens

Showrooms
Estate Offices

Full details of the buildings shown and all Thorns building systems, are given in their New Catalogue which is unique, in that it gives at a glance, sizes, prices, plans and specifications. It is available, free, to bona fide enquirers.



TEMPORARY SERVICES BLOCK FOR SALISBURY CATTLE MARKET:
TWO BUILDINGS (1) OFFICES, CANTEEN, ETC. (2) SHOPS.
Photograph by courtesy of The City Engineer, City of New Sarum

TIMBER BUILDINGS PREFABRICATED BY... **THORNS**

J. THORN & SONS LTD. (DEPT. 73) BRAMPTON ROAD, BEXLEYHEATH, KENT

Telephone: Bexleyheath 0021 (10 lines).

Established 1896.

Also at: MANCHESTER, SHEFFIELD, WALSALL, CAERPHILLY & BIRTLEY (Co. DURHAM)

BD 897

UNIVERSAL are everywhere!



all over the place. They live in Liverpool.
And Newcastle and Weymouth. Where do
they work? Dounreay, in the far north.
Winfrith Heath, down in sunny Dorset.
Milford Haven deep-water berth. For BP at
Pembroke Dock. For Liverpool Corporation
Waterworks. Consulting engineers, civil
engineers. For ladies who lose their gems. Big
job, small job, Universal tackle it. Universal
will go anywhere. Use Universal.

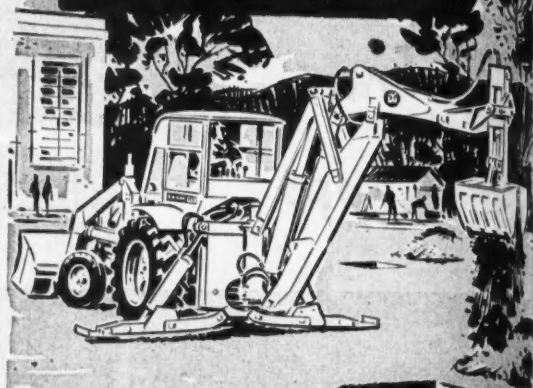
UNIVERSAL DIVERS LTD · 40 NORTH JOHN ST · LIVERPOOL 2 · MAR 2770

Also at Newcastle

WHITLOCK

EXCAVATORS SHOVELS DUMPERS

Ask us for a demonstration



Essex Distributors

SYMES (PLANT SALES) LTD

BRENTWOOD · ESSEX Tel: 2116 5 lines



Chosen for their pleasant
appearance and proved
durability for

ST. PETER'S CHURCH, HINCKLEY

which is faced with Ibstock
2in. Handmade Multi-Golden
Brown Sandstocks, one of the
large range of coloured
facing bricks available.

Architects:

Messrs. Frank Brown & A. L. Sharpe
L/F.R.I.B.A.
2, Station Road, Hinckley.

Contractors:

Greaves Bros. Ltd., 83, Mount Road,
Hinckley.

Bricks:

2in. Handmade Multi-Golden Brown
Sandstocks.

Agents:

Joseph Ellis & Sons Ltd., Builders'
Merchants
Hinckley.

Most facing bricks are in short supply and
all orders should be placed as far ahead as
ever possible. We are, of course, anxious
to receive enquiries for future deliveries and
shall be happy to make reservation against
architects' specifications.

Photograph by courtesy of Leicester Evening Mail

Send for details

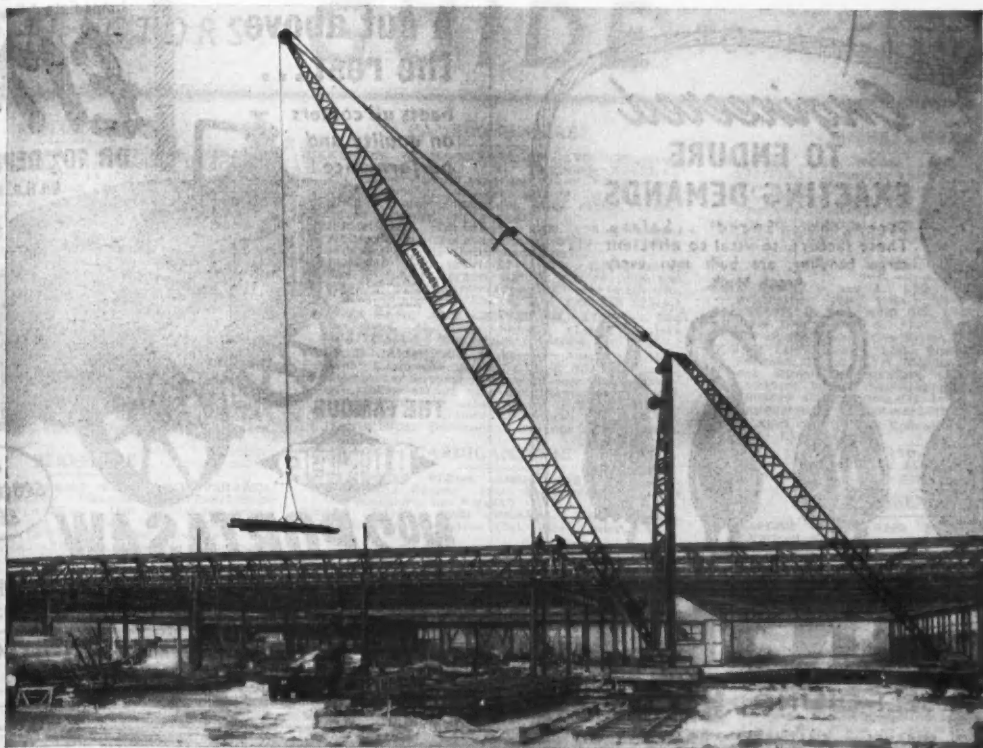
Ibstock

FACING BRICKS

are specified by Architects everywhere

THE IBSTOCK BRICK & TILE COMPANY LIMITED, Ibstock, near Leicester.
London: B.R. Goods Depot, Wright's Lane, Kensington, W.8.

Telephone: Ibstock 591 (3 lines)
Telephone: Western 1281 (2 lines)



HIRE ANDERSON CRANES

FROM CASWELL

EXTENSIVE MODERN FLEET OF HAND, STEAM AND ELECTRIC DERRICKS FROM 15 CWT. — 30 TONS CAPACITY WITH JIB LENGTHS UP TO 135FT.

AVAILABLE FROM DEPOTS AT LONDON AND BIRMINGHAM WITH COMPLETE ERECTION AND SERVICING FACILITIES.

CASWELL CRANES & ERECTION LTD.

GROVE WORKS, HAMMERSMITH, LONDON W.6. Phone: RIVerside 8922/5

AND

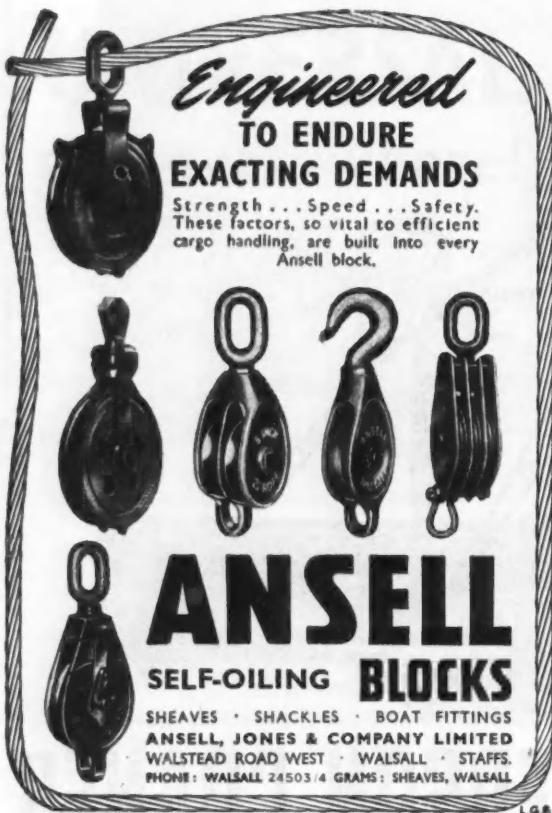
156 CHARLES HENRY ST., BIRMINGHAM 12.

Phone: MID 7063/4

THE A.C. PLANT & HIRE CO. LTD.

TAYMOUTH WORKS, CARNOUSTIE

Phone: CARNOUSTIE 2215



Engineered
**TO ENDURE
EXACTING DEMANDS**
Strength...Speed...Safety.
These factors, so vital to efficient
cargo handling, are built into every
Ansell block.

ANSELL
SELF-OILING **BLOCKS**
SHEAVES • SHACKLES • BOAT FITTINGS
ANSELL, JONES & COMPANY LIMITED
WALSTEAD ROAD WEST • WALSALL • STAFFS.
PHONE: WALSALL 24503/4 GRAMS: SHEAVES, WALSALL

L.G.S.

**A cut above
the rest...**

beats all comers
on quality and
performance!



THE FAMOUS



Nº2 PORTASAW

PORTABLE • ECONOMICAL • PETROL or ELECTRIC POWER

Send coupon for leaflet on PORTASAWS to:

THE LINER CONCRETE MACHINERY CO. LTD
139 PARK ROAD, GATESHEAD, 8.

Name _____
Address _____

Telephone: 72501

Telegrams: "Liner Gateshead"

London Office: Lexden Road, Acton, W.3. Telephone: ACOrs 8911

Also at
Birmingham, Manchester, Liverpool, Bristol, Leeds, Grantham,
Torquay, Edinburgh, Glasgow, Dundee, Belfast, etc.



**You may never need
an airtight seal at 10 p.s.i.
BUT YOU'VE GOT IT!**

The smallest of pressures serves to actuate
the Victor Air Hose Coupler's rubber sealing ring.
The Coupler is self-sealing up to 150 p.s.i.
and the robust spring bridle makes uncoupling
impossible under pressure. With such a coupler
air wastage just doesn't happen.

Victor AIR HOSE COUPLER



MADE BY VICTOR PRODUCTS (WALLSEND) LTD. WALLSEND-ON-TYNE, ENGLAND Telephone: Wallsend 628331 (8 lines)

Obtainable from agents throughout the country.

CONTRACTORS' GUIDE TO AGGREGATES

GLOUCESTERSHIRE

HALL AND CO. LTD., Longmoor House, Ashton Vale Road, Bristol, 3. (Tel.: 63001.) Gravel aggregates, concreting, plastering and building sand.
HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)
SHAKEMANTLE QUARRY CO. LTD., Cinderford, Glos. (Tel.: Cinderford 3197.) "Doura" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. Concrete aggregates, roadstones, and Dolomitic media.
TAYMAC, LTD., Wootton Bassett, near Swindon, Wilts. (Tel.: Wootton Bassett 391—5 lines.) Cotswold stone, hardcore, washed and graded aggregate, building sand.
WHITECLIFF QUARRIES AND BRICKWORKS, LTD., Coleford, Glos. (Tel.: Coleford 3158/9.) Tanned and bituminous limestone macadam, asphalt, concrete aggregates, dolomitic media, engineering, facing and common bricks for all purposes. Delivery road or rail.

HAMPSHIRE

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)
BULL BROS. S. AND L. LTD., 126A High Street, Winchester. (Tel.: 2264.) Concreting aggregates (reconstituted, pit-mixed, weighbatched to meet any specification); also ballast, hoggins, path gravel and sand from own pits at Fawley, Lockerley, Ringwood, Romsey, Swaney and Totton.
DANGERFIELD, F. J. AND CO. LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)
HALL AND CO. LTD., Baltic Wharf, Marine Parade, Southampton. (Tel.: Southampton 21234.) and at Portsmouth. Pits at Ringwood, Highbridge and Fawley. Gravel aggregate, concreting, plastering and building sand.
HASKINS, G. AND SONS, LTD., Queen Street, Emsworth. For washed sand and graded aggregates, path and road gravels, hoggins, clinker, ashes. (Tel.: Emsworth 2271.)
HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)
MIDLAND AGGREGATES, LTD., Eversley, near Basingstoke, Hants. (Tel.: Eversley 2250.) Washed and pit sand and all aggregates.
MORRIS (VERWOOD), LTD., Verwood, Wimborne, Dorset. (Tel.: Verwood 234.) Concrete aggregates, building sand, hoggins, path gravel.
NEW MILTON SAND AND BALLAST CO., Lymington Road, New Milton, Hants. (Tel.: 37 and 566.) Guaranteed uncrushed, washed, screened and graded concrete aggregates. All sizes. Washed sharp and fine sands.
PRIVETT, W. G. AND SONS, LTD., Drayton Lane, Portsmouth. (Tel.: Cosham 70059.) Concrete aggregates, building sand, hoggins, ashes, washed and graded filter media, etc.
RALPH OF BASINGSTOKE, LTD., 37 Kemphott Lane, Basingstoke, Hants. (Tel.: 85.) Concrete aggregates, building sand, path gravel, hoggins, etc.
TWICKENHAM GRAVEL CO., LTD., Ship Lane, Farnborough (Tel.: 1126); Sandhurst Road, Yateley (Tel.: 2230.)
WINTON, WM. R., LTD., Send, Woking, Surrey. (Tel.: Ripley 2454/5.) Concrete aggregates. Ready mixed concrete plant at Newnham, Basingstoke.

HEREFORDSHIRE

BENGRI AND SONS, LTD., Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) Suppliers of all grades of crushed concrete aggregates, road metalling, pitching stone, hardcore and coated macadam.
HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)
NASH ROCKS STONE AND LIME CO., LTD., Prestleigh, Radnor. (Tel.: Prestleigh 352.) All grades of tanned and bituminous macadam, roadstone, chippings and concrete aggregates, etc.
OLD RADNOR TRADING CO., LTD., Kingston. (Tel.: 421.) Granite and limestone aggregates, coated macadam, concrete products.
SALOP SAND AND GRAVEL SUPPLY CO., Adamston, Wellington (Tel.: 961), Salop.
SHAKEMANTLE QUARRY CO., LTD., Cinderford, Glos. (Tel.: Cinderford 3197.) "Doura" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. Concrete aggregates, roadstones and Dolomitic media.
WHITECLIFF QUARRIES AND BRICKWORKS, LTD., Coleford, Glos. (Tel.: 3158/9.) (See Gloucestershire.)

HERTFORDSHIRE

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)
DANGERFIELD, F. J. AND CO. LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)
EASTWOODS SALES, LTD., Eastwood House, City Road, E.C.1. (Tel.: Clerkenwell 2040.) Broxbourne pit (Tel.: Hoddesdon 2456). Producers and distributors of all grades of washed aggregates.
GABRIEL, C. LTD., Palmers Lane, Enfield, Middx. (Tel.: HOWard 4351/2/3.) Washed aggregates and building sand. Pits at Hertford and Enfield.
HALL AND CO. LTD., Railway Yard, Orchard Road, Stevenage (Tel.: 778), and at Hatfield. Gravel aggregates, concreting, plastering and building sand.
HARTIGAN, G. F. X., LTD. (See Buckinghamshire.)
ST. ALBANS SAND AND GRAVEL CO., LTD., London Colney, St. Albans, Herts. (Tel.: Bowmans-green 2271.) Pits at Smallford Lane, Smallford, and Bramfield Lane, Waterford, Marsh Road, Stanstead Abbots.
ST. IVES SAND AND GRAVEL CO., LTD., 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/2/3/4.) and Three Hills Pit, Codicote. (Tel.: Codicote 217.)
TWICKENHAM GRAVEL CO., LTD., Eleanor Cross Road, Waltham Cross. (Tel.: 23388.)
WEBB, G., CAMBRIDGE, 35 Magrath Ave., Cambridge. (Tel.: 59966, 53969, 50353 (night).) (See Cambs.)
WINFIELD, HENRY, LTD., Pix Farm Lane, Hemel Hempstead, Herts. (Tel.: Berkhamstead 1208/9.) Pits at Hemel Hempstead, Watford, West Hyde, Rickmansworth. Concrete aggregates, hoggins, building sand.

HUNTINGDONSHIRE

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)
FERRERS AND AGGREGATES, LTD., Northampton Rd. Quarries, Rushden (2354/5). (See Northants.)
GRAVEL PRODUCTS (HUNTS.), LTD., Little Paxton, St. Neots, Hunts. (Tel.: St. Neots 308.) Pits at Little Paxton, St. Neots, Hunts.; and Blunham, Beds.
HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)
NENE BARGE AND LIGHTER CO., LTD., Market Chambers, Peterborough (Tel.: 5534/5) and Ship End Quarries, Wansford, near Peterborough (Tel.: Wansford 384/5.) Roadstone, hardcore, broken stone, ballast, ashes, silica clay and sand.
ST. IVES SAND AND GRAVEL CO., LTD., 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/2/3/4.) Producers of all grades of washed sand and gravel. Ready mixed concrete. Precast concrete of every description.
WEBB, G., CAMBRIDGE, 35 Magrath Ave., Cambridge. (Tel.: 59966, 53969, 50353 (night).) (See Cambs.)

KENT

BRASTED SAND PITS, Brasted, Kent. (Tel.: 586.) (For details, see Kent.)
BRASTED SAND PITS, Brasted, Kent. (Tel.: 586.) (For details, see Kent.)
BROWN BROS. (SITTINGBOURNE), LTD., Chalkwell Road, Sittingbourne, Kent. (Tel.: Sittingbourne 330.) Sand, ballast, shingle, hoggins, hardcore, clinker, chalk, etc.
CLUBB, J. LTD., Dartford, Kent. (Tel.: Dartford 25431.) Pits in North Kent, Medway area and Sevenoaks district. All washed and crushed gravel aggregates, concreting and building sand.
DIAMOND TREAD CO. (1938), LTD., Ditton Court Quarry, Larkfield, near Maidstone. (Tel.: West Malling 3444.) Quarry owners, tarmacadam, bituminous macadam and dry road stone manufacturers and suppliers. Head Office: 21-22 Old Bailey, London, E.C.4. (Tel.: City 7001—10 lines.)
DIAMOND TREAD CO. (CHART), LTD., Swan Lane Quarries, Little Chart, Ashford, Kent. Quarry owners: tarmacadam, bituminous macadam and dry roadstone suppliers. All inquiries to Area Office: Ditton Court Quarry, Larkfield, near Maidstone, Kent. (Tel.: W. Malling 3444.)
HALL AND CO. LTD., Canning Street, Maidstone. (Tel.: Maidstone 1051) and at Folkestone and Hayes. Pits at Lunford, near Larkfield, Riverhead, Gravel aggregates, concreting, plastering and building sand, Surecrete precision-mixed concrete.
HARRIS, R. AND SONS, LTD., Station Road, Paddock Wood, Kent. (Tel.: 385.) (See Sussex.)
T. J. METCALF AND SONS, LTD., Town Wharf, West Street, Gravesend, Kent. (Tel.: Gravesend 5244.) Brightlingsea ballast, sand and shingle.

LANCASHIRE

BROOMBYS, LTD., Sandside, Milnthorpe (Tel.: 32612), Westmorland. (See Westmorland.)
BUCKTON QUARRY, Broken stone, all grades. (Tel.: Mossley 123.) Or write Main Road, Oldham.
CASTLETON SAND AND GRAVEL QUARRIES, LTD., Trowley Lane, Rochdale. (Tel.: Rochdale 57100.) Lee Quarries, Bacup. (Tel.: Bacup 287.) Washed pit sand, crushed washed stone aggregates, pitching stone.
CROXSON GRAVELS, LTD., Stoke-on-Trent, Staffs. (Tel.: Tean 393.) Manchester Office: Blackfriars 3766/7. Plant capacity, 2,000 tons per day.
HARTLEY, JOHN, W., LTD., Lundsfield Quarry, Carnforth, Lancs. (Tel.: Carnforth 100.) Large producers of highest quality washed sands, clean washed natural pebble and crushed gravel aggregates for all construction purposes.
HILTON GRAVEL, LTD., Rice Street, Liverpool Road, Manchester, 3. (Tel.: Deansgate 5455 and 5456.) Quarries at Cheshire, Staffs. (Tel.: Tean 241.) And at Longton, Stoke-on-Trent. (Tel.: Longton 32196.)
HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)
HULLAND GRAVEL, LTD., Cheshire, Stoke-on-Trent. (Tel.: Cheshire 233/4, 2119 and 2195.) Manchester Office: 464 Wilbraham Road, Chorlton, Manchester, 21. (Tel.: Chorlton 2274/5.)
PENMAENMAWR AND WELSH GRANITE CO., LTD., all sizes and gradings of crushed granite aggregate. Immediate delivery ex stock.
Liverpool and Preston Depots:
 Office: 7 Picton Road, Liverpool, 15. (Tel.: Seton Park 7261.)
 Manchester Depot:
 Office: Cornbrook Road, Manchester, 15. (Tel.: Trafford Park 3830.)
TERN HILL SAND AND GRAVEL CO., LTD., Alimington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) (See Staffs. for details.)
TRENTHAM GRAVEL CO., LTD., Lordley Quarries, Willoughbridge, near Market Drayton, Salop. (Tel.: Pipe Gate 304/5.) All sizes crushed or natural washed gravel. Twice washed sharp concreting sand. Plant capacity: 2,000 tons per day.
WITHERS LESTER, LTD., Back Lane Quarry, Carnforth. (Tel.: Carnforth 427.) Graded limestone aggregate to B.S.S., all sizes. Immediate delivery.
X.L. GRANITE (INGLETON), LTD., Head Offices: Clapham, via Lancaster. (Tel.: Clapham 318/9.) Works Tel.: Ingleton 231. All sizes and gradings of Ingleton granite aggregate.

LEICESTERSHIRE

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)
CLIFFE HILL GRANITE CO., LTD., Markfield, near Leicester. (Tel.: Markfield 561/2/3.) Granite aggregates to B.S.S. All sizes. Tanned and bituminous granite concrete slabs and kerbs. 'In' washed granolithic aggregate.
DUSTON STONE QUARRIES, LTD., New Duston, Northampton. (Tel.: Brixworth 278 and 298, Duston 505.) (See Northamptonshire.)

LEICESTERSHIRE

ENDERBY AND STONEY STANTON GRANITE LTD., 21 New Walk, Leicester. (Tel.: 580.) Quarries at Enderby, London Office: 29 Dorset Square, N.W.1. (Tel.: Amb. 1141.)
HILTON GRAVEL, LTD., Hemington Fields, Shardlow, Derby. (Tel.: Shardlow 266.)
HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)
MOUNTSORREL GRANITE CO., LTD., 21 New Walk, Leicester. (Tel.: 20891.) Quarries at Mountsorrel, near Loughborough, 'In' pink granite, a local stone. London Office: 29 Dorset Sq., N.W.1. (Amb. 1141.)
WANLIU GRAVELS, LTD., Wanliu Road, Leicester. Any size or grading, all sizes, all grades, all sizes. All to B.S.S. (Tel.: 2327 and 2797.)
WREAKE VALLEY GRAVELS CO., LTD., Melton Mowbray. (Tel.: Piff-Rotherby 205 or head office Melton 2488.) All grades, washed aggregates, sand, transit mixed concrete.

LINCOLNSHIRE

CONINGSBY SUPPLY CO., LTD., Registered Office: The Broadway, Woodhall Spa, Lincs. (Tel.: Woodhall Spa 2322.) Screened limestone, hardcore, pitching, filling, hoggins, etc. Quarries at Woodhall Spa, Lincs. (Tel.: Woodhall Spa 2322.)
DOWN-MAC (PRODUCTS), LTD., Tallington, Stamford. All grades of washed sand and gravel. (Tel.: Market Deeping 2301.)
GIBBS, F. B. AND SONS, LTD., Registered Office: Welby House, Market Deeping, near Peterborough. (Tel.: Market Deeping 3321/2383.) Pits at Litchford, near Peterborough. (Tel.: Market Deeping 2210.) All grades washed sand and aggregate.
HARTSHOLME GRAVEL AND SAND CO., LTD., Hartsholme Wood, Doddington Road, Lincoln. Selling agents: Hartsholme Sales, Ltd., 17 New Parade, Lincoln. (Tel.: Lincoln 23391.)
HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)
HURDIS, J. W., LTD., Victoria Street, Grimsby. (Tel.: Grimsby 3657.) and Castor. (Tel.: Castor 1281.) Building, plastering, concrete and also gravel, ballast, hoggins and roadmaking materials.
PETERBOROUGH QUARRIES, LTD., Sandholme, Maxey, Peterborough. (Tel.: Market Deeping 2140.) All grades washed sand and hardcore and broken stone. (See also Northants.)
POLLARD, C. AND SON (TALLINGTON), LTD., Walk House, Langtoft, Peterborough. (Tel.: Tallington, near Stamford, Lincs. (Tel.: Market Deeping 2140.) All grades washed sand and aggregates. For "Supercrete" ready mix concrete, 'phone Market Deeping 3132.
SCRETON BROTHERS (BARTON-UPON-HUMBER), LTD., 2 West Barton-on-Humber Road, Barton-on-Humber, Lincs. (Tel.: Barton 2189.) All grades washed sand and gravel, roadstone, hardcore, washed silica sand.
TRENTFORD GRAVELS, LTD., Head Office: Desborough, Grimsby. (Tel.: Grimsby 5354.) Washed and graded gravel and sand, roadstone, hardcore, slag, waste, ashes, etc. Pits and quarries throughout the West.

LONDON

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)
BUCBRICKS COMPANY, LTD., 57 Piazza Chamber, Covent Garden, London, W.C.2. (Tel.: Covent Garden 0534.) All grades of washed aggregate, sand, building sand, asphalt, grit, Sterilised sand accurately graded to buyers' requirements.
COX, H. AND SONS, LTD., 34/35, Southam Road, Way, Camberwell, S.E.5. (Tel.: Rodney 2215—3 lines.)
DANGERFIELD, F. J. AND CO. LTD., 261A Finchley Road, N.W.3. (Tel.: HAMstead 8044/8.) Granite, limestone or slag, coated or dry, all uses in pitching, granite kerb and setts, felspar, granite and other minerals by road or rail, or ex London and other ports.
DORSET LESTER, LTD., Bumpers Lane, Salop. (Tel.: HOWard 4351/2/3.) Washed aggregate, Portland, Dorset. (Tel.: Portland 2207/8.) (For details, see Dorset.)
DRINKWATER, W. W. (WILLESDEN), LTD., Bohn Hill Lane, Willesden, N.W.10. (Tel.: Willesden 6400/5.) Pits: Rush Green, Denham, Rush Green, Denham 2241/2/3.) Also Staines Road, Heath, Middlesex. (Tel.: Hounslow 6222/3.)
GABRIEL, C. LTD., Palmers Lane, Enfield, Middx. (Tel.: HOWard 4351/2/3.) Washed aggregate, building sand. Pits at Enfield and Hertford.
GREENHAM SAND AND BALLAST CO., LTD., Chertsey Road, Feltham. (Tel.: Feltham 2201.) Pits at Hounslow, Feltham and Staines. Concrete aggregates, plastering and building sand.
HALL AND CO. LTD., Chantry House, Euston Street, S.W.1. (Tel.: Sloane 7122.) and at Dulwich, Poplar and Wandsworth. Gravel aggregates, concreting, plastering and building sand.
HARTIGAN, G. F. X., LTD., Washed sharp sand to B.S.S. 882. (See Buckinghamshire.)
KEEN, W. J. AND SONS, LTD., 18 Granville Road, Essex. (Tel.: Epping 2520.) All sands, washed shingle and hardcore supplied.
LONDON BALLAST CO., LTD. (Tel.: Paddington 155A) Porchester Terrace North, Paddington, W.2. E.2. (Tel.: Shore-ditch 9128/9.) All sands, shingles and shingles supplied and delivered, also washed concrete. (Tel.: Hainault 611/2/3.)
SHAKEMANTLE QUARRY CO., LTD., Cinderford, Glos. (Tel.: Cinderford 3197.) "Doura" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. (See Glos.)

MERIONETHSHIRE

SALOP SAND AND GRAVEL SUPPLY CO., Adamston, Wellington (Tel.: 961), Salop.

MIDDLESEX

CROSS, GEO. C. AND CO. LTD., Uxbridge Rd., Southall. (Tel.: Southall 2264/5/6.) Concrete aggregates, hardcore, excavations, demolition.
DRINKWATER, W. W. (WILLESDEN), LTD., Bohn Hill Lane, Willesden, N.W.10. (Tel.: Willesden 6400/5.) Pits: Rush Green, Denham, Rush Green, Denham 2241/2/3.) Also Staines Road, Heath, Middlesex. (Tel.: Hounslow 6222/3.)
GABRIEL, C. LTD., Palmers Lane, Enfield, Middx. (Tel.: HOWard 4351/2/3.) Washed aggregate, building sand. Pits at Enfield and Hertford.

CONTRACTORS' GUIDE TO AGGREGATES

MIDDLESEX

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

MID-WALES

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

MONMOUTHSHIRE

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

MONTGOMERYSHIRE

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

NORFOLK

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

NORTHAMPTONSHIRE

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

CHESHAM SAND AND BALLAST CO., LTD., Chesham Road, Feltham. (Tel.: Feltham 2285/7.) All grades of sand, gravel, ballast, concrete aggregates, plastering and building sand. 100/104 Harrington Road, Hillingdon, Uxbridge. (Tel.: Uxbridge 3651/2/3.) Sand, gravel, shingle, hardcore, ashes, excavation and concrete aggregates. (See details under Northamptonshire.)

NORTHAMPTONSHIRE

NEWARK (PETERBOROUGH) SAND AND GRAVEL CO., LTD., 127 Eastfield Road, Peterborough. (Tel.: Peterborough 2091.) All grades washed and screened gravel and sand.

PETERBOROUGH QUARRIES, LTD., Sandylands, Maxey, Peterborough. (Tel.: Market Deeping 2355.) Eight quarries supplying all grades of hardcore and broken stone. Also Wetmix at Yarwell, Wansford. All grades gravel and sand at Maxey.

POLLARD, C. AND SON (TALLINGTON), LTD., Walk House, Langtoft, Peterborough. (Tel.: Market Deeping 2140.) (See Lincolnshire for details.)

STORTON, F. E. LTD., Weedon Road, Northampton. (Tel.: Northampton 3358.) Producers of washed gravel and sand to B.S.S.

NORTH WALES

CAWOOD, WHARTON AND CO., LTD., Pistyll Gwyn Quarry, Llanarmon, near Mold. (Tel.: Llanarmon-y-nall 37.) Crushed limestone and tarred macadam, all grades.

CHESHIRE AND NORTH WALES TARRED MACADAM CO., LTD., Llanarmon, near Mold. (Tel.: Llanarmon-y-nall 43.) Hard, broken limestone; dry and coated to B.S.S. Inquiries to Registered Office—Market Chambers, Tower Square, Tunstall, Stoke-on-Trent. (Tel.: Stoke-on-Trent 8899/4.)

ENSTON BROS., Llwyn Isaf Quarry, Clynogfawr, Caernarvon. (Tel.: Clynogfawr 297/8.) All sizes crushed, washed natural sand and gravel. Highest quality. Precast concrete products, ex our Griffiths Crossing Factory, Caernarvon. (Tel.: Caernarvon 2535/6.) Crushed granite ex our quarry, Penwyn and Gwydyr Quarries, Ltd., Trefriw, Llanwrthwl, Denbighshire. (Llanwrthwl 38.)

PENMAENMAWR AND WELSH GRANITE CO., LTD., Quarries at Penmaenmawr. (Tel.: 2256/8.) and at Trevor. (Tel.: Clynogfawr 223.) Caernarvonshire. All sizes and gradings of crushed granite aggregate. Any quantity per day; immediate delivery ex stock. Coated granite also available.

TERN HILL SAND AND GRAVEL CO., LTD., Alington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) (See Staffs. for details.)

NOTTINGHAMSHIRE

AIZLEWOOD, DOUGLAS E., Bow Bridge, Rotherham. (Tel.: Rotherham 2622.) Crushed and graded limestone; all grades of washed gravel and sand. **BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD.**, near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)

GLEN QUARRIES, LTD., Central Chambers, Wellgate, Rotherham. (Tel.: Rotherham 5223.) Crushed and graded stone, concrete sand, building sand, plastering sand and crushed gravel; could be collected ex quarry or delivered.

GUNTHORPE GRAVELS (1958), LTD., (Tel.: Nottingham 77357; and Works: Loughborough 2131.) An associate company of T. C. Campbell, Ltd. All grades washed gravel and sand to B.S.S.

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) Quarries at Hoveringham, Holme, Pierrepont, Colwick, Bleasby and Newark. Other quarries throughout the county—deliveries in 21 counties. All grades of washed gravel and sand in any specification. Crushed quartzite for surface dressing of roads a speciality. Combined plant capacity 20,000 tons per day.

NEWARK GRAVEL AND CONCRETE CO., LTD., Grove Street, New Balderton, Newark, Notts. (Tel.: Newark 401.) All grades washed sand and aggregates.

NORTH NOTTS. GRAVEL CO., LTD., Bellmoor, Retford, Notts. (See Yorkshire.)

SALISBURY AND WOOD, LTD., Matlock. (Tel.: 272/273.) (For details, see Derbyshire.)

OXFORDSHIRE

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)

BICESTER STONE CO., LTD., Stratton Audley, Bicester, Oxon. (Tel.: Stratton Audley 391/2.) Manufacturers and suppliers of all grades limestone, macadam, dry, pitching stone, hardcore, etc.

CURTIS, J. AND SONS, LTD., Botley Works, Oxford. (Tel.: Oxford 41081/2/3.) Sand and all grades of washed aggregates. Pits at Radley, near Abingdon. (Tel.: Abingdon 441.)

DANGERFIELD, F. J. AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

DUSTON STONE QUARRIES, LTD., New Duston, Northampton. (Tel.: Brixworth 278 and 298; Duston 505.) (See Northamptonshire.)

GRUNDON, S. (EWELEME), LTD., Eweleme, Oxon. (Tel.: Eweleme 20 and 37.) London Office (Tel.: Uxbridge 36511/2/3.) All grades washed aggregates. Path hoggin, broken stone, building sand.

HAINES, H. (WITNEY), LTD., Oxford Road, Witney. (Tel.: Witney 42.) All grades washed aggregates, hardcore, pitching and broken stone. Cotswold building and walling stone.

HALL AND CO., LTD., Cardiff Road, Reading. (Tel.: 5045/8.)

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

SHETTERTON STONE QUARRIES, LTD., Pix Farm Lane, Hemel Hempstead, Herts. (Tel.: Berkhamstead 1208/9.) Roadstone, Cotswold building and walling stone.

RADNORSHIRE

BENGRIY AND SONS, LTD., Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) (See details under Herefordshire.)

NASH ROCKS STONE AND LIME CO., LTD., Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)

OLD RADNOR TRADING CO., LTD., Quarries in Radnorshire. (Tel.: Kingston 421.) (See Herefordshire.)

SALOP SAND AND GRAVEL SUPPLY CO., Admaston, Wellington. (Tel.: 961.) Salop.

RUTLAND

GIBBONS, F. B. AND SONS, LTD., Welby House, Market Deeping, Peterborough. (Tel.: Market Deeping 3321/2383.) (See Lincolnshire for details.)

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

KETTON STONE CO., (Prop.: Andrew's Garage), Ketton, near Stamford. (Tel.: Ketton 206.) Hardcore, roadstone, crushed stone, top soil, silica clay. Quarries at Ketton.

PETERBOROUGH QUARRIES, LTD., Sandylands, Maxey, Peterborough. (Tel.: Market Deeping 2355.) Quarry at Greetham, all grades of broken stone and hardcore. (See also Northamptonshire.)

POLLARD, C. AND SON (TALLINGTON), LTD., Walk House, Langtoft, Peterborough. (Tel.: Market Deeping 2140.) (See Lincolnshire for details.)

SHROPSHIRE

BALLIDON QUARRIES, LTD., Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 202.) Clean and graded dry limestone to B.S.S., all sizes; coated limestone to B.S. 802 and 1621 and wetmix; large output; reliable deliveries.

BENGRIY AND SONS, LTD., Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) (See details under Herefordshire.)

DORRINGTON SAND AND GRAVEL QUARRIES, near Shrewsbury. (Tel.: Dorington 276.) Supplies of ready mixed concrete, building sand, washed sand, washed and crushed gravel.

NASH ROCKS STONE AND LIME CO., LTD., Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)

OLD RADNOR TRADING CO., LTD., Kingston. (Tel.: 421.) (See Herefordshire.)

SALOP SAND AND GRAVEL SUPPLY CO., Admaston, Wellington. (Tel.: 961.) Salop.

TERN HILL SAND AND GRAVEL CO., LTD., Alington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) (See Staffs. for details.)

TRENTHAM GRAVEL CO., LTD., Lordsley Quarries, Willoughbridge, near Market Drayton, Salop. (Tel.: Pipe Gate 304/5.) All sizes crushed or natural washed gravel. Twice washed sharp concrete sand. Plastering sand. Plant capacity: 2,000 tons per day.

SOMERSET

ASHAM QUARRY CO., LTD., Chantry, Frome. (Tel.: Nunney 351.) All sizes limestone block, broken and aggregates. Tarred and bituminous macadam to B.S. Ex quarry and delivered.

DANGERFIELD, F. J. AND CO., LTD., 216A Finchley Road, London, N.W.3. (Tel.: HAMstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

HALL AND CO., LTD., Longmoor House, Ashton Vale Road, Bristol, 3. (Tel.: 63001.) Gravel aggregates, concrete, plastering and building sand.

WAINWRIGHT, JOHN, AND CO., LTD., Shepton Mallet. (Tel.: Shepton Mallet 2366/7.) All sizes basalt, coated basalt, concrete aggregates, filtering media, building blocks and slabs.

SOUTH SCOTLAND

ESK MANUFACTURING CO., LTD., Cumberland. (Tel.: Carlisle 2-4941.) (For details, see Cumb.)

SOUTH WALES

AMALGAMATED AGGREGATES, LTD., 97 Cowbridge Road East, Cardiff. (Tel.: Cardiff 25249.) All grades of crushed and graded aggregate, dry or washed, high calcium or dolomitic limestone, also all grades coated stone. Quarries near Newport, Cardiff, Bridgend, Pontypridd.

HALL AND CO., LTD., 34 High Street, Narberth. (Tel.: 74.)

PENMAENMAWR AND WELSH GRANITE CO., LTD., 18 Quay Street, Cardiff. (Tel.: 20646/7.) All sizes and gradings of crushed granite aggregate from our Cardiff and Swansea Dock Depots. Dolomite aggregates from Eweleme Quarry, Bridgend. (Tel.: Bridgend 3786.) Coated stone also available.

SESSIONS AND SONS, LTD., West Dock, Cardiff. Producers of coarse and fine aggregate; dredged and graded to British Standards. Branches Newport and Swansea. (Also at Gloucester and Hereford.)

SHAKEMANTLE QUARRY CO., LTD., Cinderford, Glos. (Tel.: Cinderford 3197.) "Dours" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. (See Glos.)

SOUTH WALES SAND AND GRAVEL CO., LTD., Head Office: P.O. Box 8, Beaufort Buildings, Swansea. (Tel.: Swansea 53071.) Sand and gravel merchants, builders' merchants, Pennant Quarry owners slag, hardcore, ashes, filling, graded clinker filter media. Depots: Cardiff, Newport, Barry, Port Talbot, Briton Ferry, Swansea, Llanelli. (Tel.: 74.)

STAFFORDSHIRE

BALLIDON QUARRIES, LTD., Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 202.) Clean and graded dry limestone to B.S.S., all sizes; coated limestone to B.S. 802 and 1621 and wetmix; large output; reliable deliveries.

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)

CROXEDON GRAVEL, LTD., Cheddle, Stoke-on-Trent, Staffs. (Tel.: Tean 393.) Manchester Office: 81, Piccadilly, 3766/7. Plant capacity 2,000 tons per day.

DUNNING AND SON, LTD., Wood End Gravel Pits, Hednesford. (Tel.: Hednesford 302/325/251.) All grades of washed sand and gravel supplied to B.S.S.

HILTON GRAVEL, LTD., Cheddle, Staffs. (Tel.: Tean 241.) Also at Longton, Stoke-on-Trent. (Tel.: Longton 32196) and Stretton, Burton-on-Trent. (Tel.: Burton 6061.)

HULLAND GRAVEL CO., LTD., Cheddle, Stoke-on-Trent. (Tel.: Cheddle 2323/4, 2119 and 2195.) Manchester Office: 44, Wilbraham Road, Chorlton, Manchester, 21. (Tel.: Chorlton 2274/5.)

KEVIN LIME CO., LTD., Oakmoor, Staffs. (Tel.: Oakmoor 385-386.) Clean graded dry limestone, all to B.S.S. sizes. Output 1,000 tons per day.

CONTRACTORS' GUIDE TO AGGREGATES

STAFFORDSHIRE

RUGELEY GRAVEL CO., LTD., Rugeley Quarries, Rugeley, Staffs. (Tel.: Rugeley 251/2.) Entirely modern plant. Sand classifiers. Finest aggregates to B.S.S. Large output.

SALISBURY AND WOOD, LTD., Matlock. (Tel.: 72/273.) (For details, see Derbyshire.)

SHIRE OAK GRAVELS, LTD., Litchfield Road, Walsall Wood, Staffs. Washed crushed gravel and washed sand. (Tel.: Brownhills 3253.)

TERN HILL SAND AND GRAVEL CO., LTD., Alminston Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) Pit sand, concrete sand, and all grades of washed crushed gravel. Hardcore, clinkers, ashes and hoggins.

TRENTHAM GRAVEL CO., LTD., Lordsley Quarries, Willoughbrough, near Market Drayton, Salop. (Tel.: Pipe Gate 304/5.) All sizes crushed or natural washed gravel. Twice washed sharp concreting sand. Plastering sand. Plant capacity 2,000 tons per day.

WARDLOW LIMESTONE, LTD., Caudon Low, N. Staffs. (Tel.: Oakmoor 366.) Graded limestone for all purposes. Ground limestone.

WINDMILL SAND AND GRAVEL QUARRIES, LTD., Cannock Road, Wolverhampton. (Tel.: 31108.) Concrete aggregates, plastering and building and asphalt sand. All to B.S.S.

SUFFOLK

ALRESFORD SAND AND BALLAST CO., LTD., Alresford Creek, near Colchester, Essex. (Tel.: Wivenhoe 341/494.) Suffolk area pits at Bures and Buxford. All grades washed aggregate, sand; also hoggins.

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: Vigilant 2530.) (For details, see Leics.)

DICKERSON, M. (CONTRACTORS), LTD., Gloucester Street, Cambridge. (Tel.: Cambridge 56973/4.) (See Cambs.)

HALL AND CO., LTD., West End Road, Ipswich. (Tel.: Ipswich 55593/4.) Pits at Kesgrave and Homersfield, near Harleston. Gravel aggregates, concreting, plastering and building sand.

MACLAREN BROS. (KENNETT), LTD., Station Road, Kennett, Cambs. (Kentford 333/4.) (See Cambs.)

ST. IVES SAND AND GRAVEL CO., LTD., 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/2/3/4; Coney Weston 12 and Halstead 2323.) Pits at St. Ives, Knettishall, near Thetford, and Gosfield, near Halstead.

THORPE GRAVEL PITS, LTD., Harvey Lane, Norwich. (Tel.: Norwich 33243/4.) (See Norfolk.)

WEBB, G. CAMBRIDGE, 35 Magrath Av., Cambridge. (Tel. 59966, 53969, 50353 (night)). (See Cambs.)

SURREY

COFF, HARRY A., LTD., Buckhurst Hill, Cheapside, Ascot, Berks. (Tel.: 1026/7.) (See Berkshire.)

DANGERFIELD, F. J. AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMstead 804/8.) For all road aggregates, kerbs, setts. (See London.)

EASTWOOD SALES, LTD., Eastwood House, City Road, E.C.1. (Tel.: Clerkenwell 2040.) Longside Sand and Ballast Pit, Thorpe, nr. Egham. (Tel.: Egham 3121.) Runfold Sand and Ballast Pit, Runfold, nr. Farnham, Surrey. (Tel.: Runfold 2020.) Producers and distributors of all grades of washed aggregates.

HALL AND CO., LTD., Victoria Wharf, Croydon. (Tel.: Croydon 4444.) Other main depots at Coulsdon, Epsom, Mitcham, Oxted, Purley, Redhill, Tadworth and Woking. Pits at Send and Redhill. Gravel aggregates, concreting, plastering and building sand, Surecrete precision-mixed concrete.

HARRIS, M. P. AND CO., LTD., Kingston Road, Leatherhead, Surrey. (Tel.: 3497.) (See Sussex.)

JAMES AND CO., LTD., 2C Buckingham Avenue, Slough. Sand, aggregates, hardcore, ashes, bulldozing & bulk excavation. (Tel.: Slough 20361/2/3.)

LONDON BALLAST CO., LTD., (Tel.: Paddington 5064, 155A Porchester Terrace North, Paddington, W.2.)

MARCO (AGGREGATES), LTD., Pit: Norlands Lane, Thorpe, near Egham. (Tel.: Chertsey 3401.) Producers and distributors of high-grade washed sand, shingle, ballast, etc.

MARCO (CROYDON), LTD., Hampton Road, West Croydon. (Tel.: THOrnton Heath 4236/7/8.) All building and road aggregates.

SURREY

MIDLAND AGGREGATES, LTD., Eversley, near Basingstoke, Hants. (Tel.: Eversley 2250.) Washed and pit sand and all aggregates.

TWICKENHAM GRAVEL CO., LTD., Government Road, Ash Vale. (Tel.: 2349.)

WELLS, A. L. AND SON, LTD., Builders' Merchants, Garlands Road, Leatherhead. (Tel.: 3018/9.) Sand aggregates, hardcore, ashes, cement. Clinker block manufacturers.

WINTON, WM. R., LTD., Send, Woking. (Tel.: Ripley 2454/5.) All grades sand, shingle, ballast, hoggins and ashes. Clinker block manufacturers.

SUSSEX

AVANN, F., Cavendish Avenue, Eastbourne. (Tel.: 4969/70.) Washed and graded ballast, sand, bricks, breeze, and concrete blocks, hardcore, clinker, tarmac, etc. supplied.

HALL AND CO., LTD., 16 Chapel Road, Worthing. (Tel.: Worthing 7840.) Other main depots at Bexhill, Bognor, Crowborough, East Grinstead, Eastbourne, Horsham, Hove and Seaford. Pits at Washington, Crambles, near Eastbourne, Chichester, Rye Harbour, Midhurst, Shoreham and Portslade. Gravel aggregates, concreting, plastering and building sand. Surecrete precision-mixed concrete.

HARRIS, M. P. AND CO., LTD., West Station Goods Yard, Bexhill (Tel. 61), Cavendish Place, Eastbourne (Tel. 3800), Dominion Road, Worthing (Tel. 8822), Whitbread Lane, Northiam (Tel. 2211), Station Goods Yard, Haywards Heath (Tel. 1750), Crawley Road, Horsham (Tel. 3366), The Horner, Chichester (Tel. 4181). All grades aggregates, hardcore, clinker, ashes, etc.

WRIGHT, C. AND SONS (BTON), LTD., 19 Bristol Gardens, Brighton, 7. (Tel.: Brighton 63357 and 62406.) All-in ballast, washed and crushed shingle, sand, ashes, hardcore, chalk, bricks, etc.

WARWICKSHIRE

BALLIDON QUARRIES, LTD., Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 302.) Clean and graded dry limestone to B.S.S., all sizes, coated limestone to B.S. 802 and 1621, and wet-mix, large output. (See Leicestershire.)

DUSTON STONE QUARRIES, LTD., New Duston, Northampton. (Tel.: Brixworth 278 and 299; Duston 505.) (See Northamptonshire.)

HAINES, H. (WITNEY), LTD., Oxford Road, Witney. (Tel.: Witney 42.) All grades washed aggregates, hardcore, pitching and broken stone. Cotswold building and walling stone.

HALL AND CO., LTD., 188 Lichfield Road, Four Oaks, Sutton Coldfield. (Tel.: Four Oaks 356.) Gravel aggregates, concreting, plastering, building sand.

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

JUDKINS, LTD., Granite Quarries, Tuttle Hill, Nuneaton. (Tel.: Nuneaton 3411—10 lines.) All sizes washed granite aggregate, tared and bituminous macadam. Slab mix a speciality.

KEVIN LIME CO., LTD., Oakmoor, Staffs. (Tel.: Oakmoor 385/386.) Clean graded dry limestone, all to B.S.S. sizes. Output 1,000 tons per day.

SHAKEMANTLE QUARRY CO., LTD., Cinderford, Glos. (Tel.: Cinderford 3197.) "Doura" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. (See Glos.)

SHIRE OAK GRAVELS, LTD., (See Staffordshire.)

WARDLOW LIMESTONE, LTD., Caudon Low, N. Staffs. (Tel.: Oakmoor 366.) (For details, see Staffs.)

WARWICKSHIRE QUARRIES, LTD., Bedworth Road, Nuneaton. (Tel.: Coventry 67821.) Red shale, screened for roads, car parks, sports grounds, tennis courts, etc., attractive colour.

WESTMORLAND

BROOMBYS, LTD., Sandside, Milnthorpe, Westmorland. (Tel.: Milnthorpe 3251/2.) All grades washed, crushed gravel, sand, limestone, granite chippings, pitching, tarmacadam, rockery stone, etc.

ESK MANUFACTURING CO., LTD., Cumberland. (Tel.: Carlisle 2-4941.) (For details, see Cumb.)

WILTSHIRE

BULL BROS., S. AND L., LTD., 126A High Street, Winchester. (Tel.: 2264.) (See Hampshire.)

COKE, T. F. (CHILTERNHAM), LTD., 267 Gloucester Road, Cheltenham. (Tel.: 4717/4874.) (See Glos.)

DANGERFIELD, F. J. AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMstead 804/8.) For all road aggregates, kerbs, setts. (See London.)

WILTSHIRE

HOVERINGHAM GRAVELS, LTD., Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 302.) Clean and graded dry limestone to B.S.S., all sizes, coated limestone to B.S. 802 and 1621, and wet-mix; large output; reliable deliveries.

MOREYS (VERWOOD), LTD., Verwood, Wiltshire. (Tel.: Verwood 234.) Concrete aggregates, building sand, hoggins, path gravel.

TAYMAG, LTD., Wootton Bassett, nr. Swindon, Wilts. (Tel.: Wootton Bassett 391—15 lines.) Cotswold stone, hardcore, washed and graded aggregates, building sand.

WORCESTERSHIRE

BALLIDON QUARRIES, LTD., Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 302.) Clean and graded dry limestone to B.S.S., all sizes, coated limestone to B.S. 802 and 1621, and wet-mix; large output; reliable deliveries.

BENGRIY AND SONS, LTD., Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 501-4.) (See details under Herefordshire.)

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

KEVIN LIME CO., LTD., Oakmoor, Staffs. (Tel.: Oakmoor 385/386.) Clean graded dry limestone, all to B.S.S. sizes. Output 1,000 tons per day.

NASH ROCKS AND LIME CO., LTD., Prestelgne, Radnor. (Tel.: Prestelgne 392.) (See Herefordshire for details.)

OLD RADNOR TRADING CO., LTD., Kidport, Herefordshire. (Tel.: 421.) (See Herefordshire.)

SHAKEMANTLE QUARRY CO., LTD., Cinderford, Glos. (Tel.: Cinderford 3197.) "Doura" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. (See Glos.)

YORKSHIRE

AIZLEWOOD, DOUGLAS E., Bow Bridge, Rotherham. (Tel.: Rotherham 2622.) Crushed and graded limestone; all grades of washed gravel and sand.

DENIFF, ALAN S., LTD., Kiveton Park, nr. Sheffield. (Tel.: Kiveton 446/7/8.) Truck-mixed and pre-mixed concrete, washed and crushed gravel, concreting sand, bldg. sand, crushed and graded aggregate.

GLEN QUARRIES, LTD., Central Chambers, Wetherby, Rotherham. (Tel.: Rotherham 5223.) Crushed and graded stone, concreting sand, building and plastering sand and crushed gravel; could be collected ex quarry or delivered.

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

NORTH NOTTS. GRAVEL CO., LTD., Retford, Retford, Notts. (Tel.: Retford 2219—3 lines.) Concrete aggregates and sands, quarry chippings, building sands. Quarries at Barmston and Lound, near Retford and Worsborough. Mixed concrete plants at Retford and Worsborough, Notts., Ossett, Yorks., and Wath-on-Deane, Yorks.

SALISBURY AND WOOD, LTD., Matlock. (Tel.: 272/273.) (For details, see Derbyshire.)

SLATER BROS. (WHITLEY), LTD., Whitley Bridge, near Goole. (Tel.: Whitley Bridge 300 and 310.) Washed and crushed gravel, concreting sand, building sand, crushed and graded stone, natural river stone for crazy paving, terrace walls & house building.

STANLEY FERRY GRAVEL CO., LTD., Nether Union Building, City Square, Leeds, 1. (Tel.: Leeds 26361.) Washed, crushed and natural grit sand and gravel. Supplies to specification, for daily production. Centre of Yorks. West Area market. Pit: Wakefield.

WELBECK SAND AND GRAVEL CO., Parkhill, Wakefield. (Wakefield 4454.) Washed sand and gravel.

WEST RIDING GRAVEL CO., Norwich Union Bldg., City Square, Leeds, 1. (Tel.: Leeds 23562.) More than 1,000-ton daily plant produces washed grit and sand. All aggregates to specification. Concreting Yorks. West Riding to Lancs. border. Pits: Wetherby.

WOMERSLEY GRADED STONE CO., LTD., Womersley Quarry, nr. Doncaster. (Tel.: Wetherby 310.) Crushed and graded calcium carbonate limestone aggregates. Triple-screened, first-class product with high crushing strength, eminently suitable for concreting, tarring and road making. Prices at analysis on application. Quarry: 2 miles S.W. Darrington, A.1.

X.L. GRANITE (INGLETON), LTD., Head Office Clapham, via Lancaster. (Tel.: Clapham 311-4.) Works Tel.: Ingleton 231. All sizes and grades of Ingleton granite aggregate.

SUBSCRIPTION ORDER FORM

To THE CONTRACT JOURNAL CO. LTD.,
32 SOUTHWARK BRIDGE ROAD, LONDON, S.E.1

Please forward "THE CONTRACT JOURNAL" each week for which
I/we enclose £.....

SUBSCRIPTIONS

£5 - 4 - 0
per year, post free
£2 - 12 - 0
half-yearly, post free
Payable in Advance

Name.....
(BLOCK LETTERS)
Full postal address.....
(BLOCK LETTERS)

Occupation/Business.....
(For Readership Classification Purposes Only)

THE INDEX TO DISPLAYED ADVERTISEMENTS WILL BE FOUND ON PAGE 600

London: Printed and published by the Proprietors, The Contract Journal Company, Ltd., 32 Southwark Bridge Road, S.E.1
Thursday, November 30, 1961. Registered at the General Post Office as a newspaper.

Singing in the rain



A Central African explorer, during a downpour, once met three natives carrying gifts from a trader—one umbrella each. Singing happily, they held them over their heads by the ferrules, tipping out the rainwater when they were full. Outdoor workers, too, are happy when they can continue on urgent work during rainy days, completely protected by John Smith weatherproof canvas products. No hours lost—and less sickness absenteeism.

JOHN SMITH

TARPAULINS • SHELTERS • COLLAPSIBLE LORRY TILTS

with immediate delivery



JOHN SMITH & CO. (LONDON) LTD. Hainault Works, Hainault Road, Chadwell Heath, Romford, Essex. Seven Kings 6070 (10 lines)
Branch Office and Works: Lower Holmes Street, Cadroxton, Barry, Glam. Barry 2372

it pays to



Bray **BRAY**

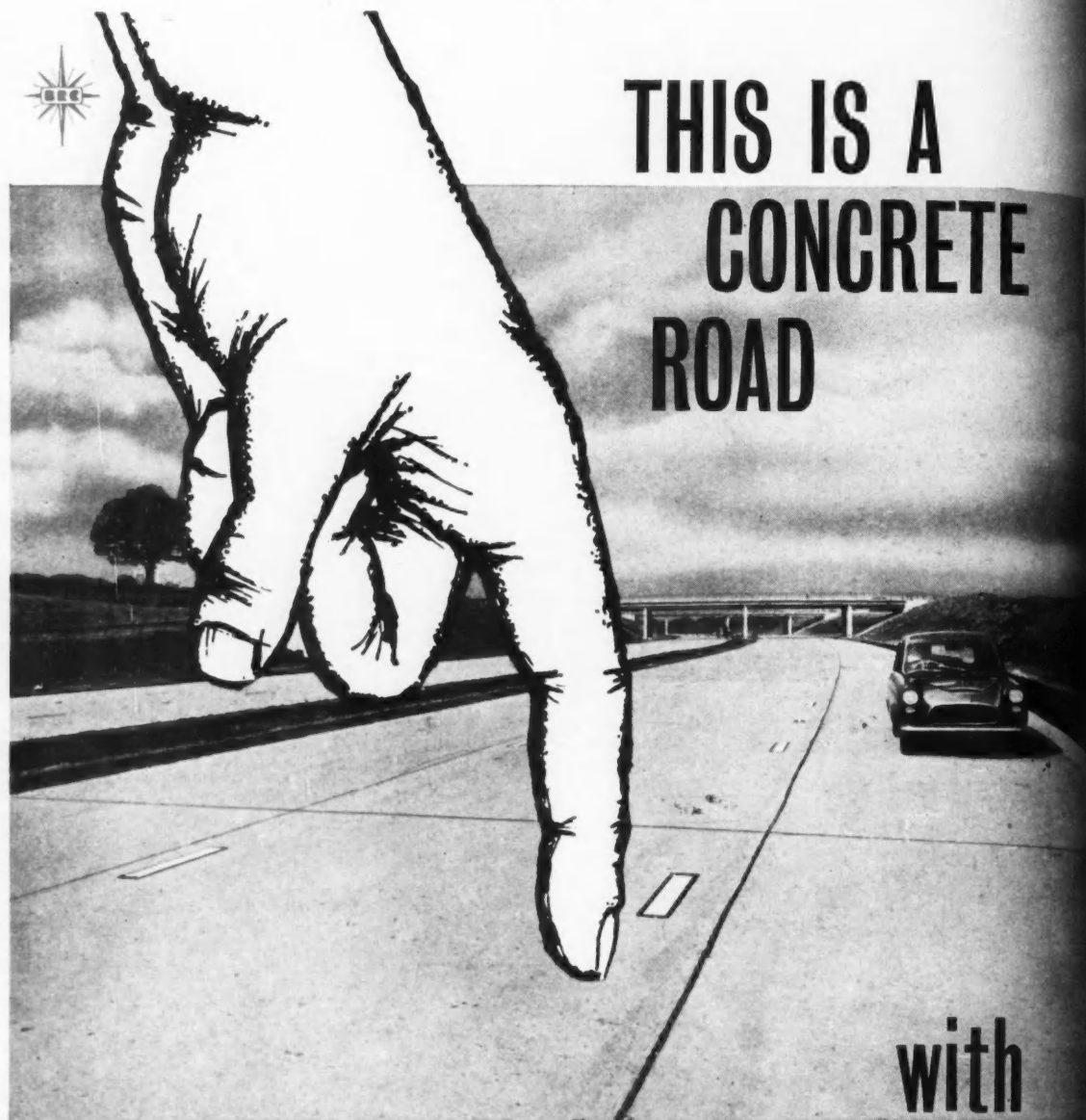


A range of loading shovels for every purpose

Manufactured by

BRAY CONSTRUCTION EQUIPMENT LTD. Feltham 3471/4

(One of the Sheppard's Engineering Group)



THIS IS A CONCRETE ROAD

with
built in
saving

SAVES time by minimizing hold-ups due to repairs.

SAVES fuel by keeping traffic flowing.

SAVES money by reducing national maintenance bills.

**Every road laid in Reinforced
Concrete is a contribution to
the National Economy**

BRC

THE BRITISH REINFORCED CONCRETE ENGINEERING CO. LTD., STAFFORD

London, Birmingham, Bristol, Chelmsford, Leeds, Leicester, Liverpool, Manchester, Newcastle, Cardiff, Glasgow, Dublin, Belfast, Bulawayo, Calcutta, Johannesburg, Singapore, Vancouver.

Export Sales: 54 Grosvenor Street, London, W.1

